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**Microdynamics in diverse teams: A review and integration
of the diversity and stereotyping literatures**

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Microdynamics in Diverse Teams:
A Review and Integration of the Diversity and Stereotyping Literatures

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Abstract

Research on the consequences of diversity in teams continues to produce inconsistent results. We review the recent developments in diversity research and identify two shortcomings. First, an understanding of the microdynamics affecting processes and outcomes in diverse teams is lacking. Second, diversity research has tended to treat different social categories as equivalent and thus not considered how members' experiences may be affected by their social category membership. We address these shortcomings by reviewing research on stereotypes, which indicates that stereotypes initiate reinforcing microdynamics among (a) attributions of a target team member's warmth and competence, (b) perceiving members' behavior towards the target team member, and (c) the target team member's behavior. Our review suggests that perceivers' *impression formation motivation* is the key determinant of the extent to which perceivers continue to treat a target based on categorization. Based on our review, we provide an integrative perspective and corresponding model that outlines these microdynamics of diversity and stereotyping in teams and indicates how stereotyping can benefit as well as harm team functioning. We discuss how this integrative perspective on the microdynamics of diversity and stereotyping in teams relates to the social categorization and the information/decision-making perspective, set a research agenda, and discuss the managerial implications.

Keywords

Diversity; Teams; Stereotypes; Microdynamics; Performance

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Microdynamics in Diverse Teams: A Review and Integration of the Diversity and Stereotyping Literatures

Globalization, demographic changes, and the increased use of teams in contemporary organizations have created a surge in research on the consequences of different team members working together (Harrison & Klein, 2007). The many recent meta-analyses on the consequences of team diversity signify the considerable amount of attention that has gone to this field of study (e.g., Bell, 2007; Bell, Villado, Lukasik, Belau, & Briggs, 2011; Horwitz & Horwitz, 2007; Joshi & Roh, 2009; van Dijk, van Engen, & van Knippenberg, 2012). For the past two decades, diversity research has mainly relied on a dual theoretical approach where the social categorization and the information/decision-making perspectives inform answers to the questions why and how diversity affects team performance (Milliken & Martins, 1996; van Knippenberg, De Dreu, & Homan, 2004; Williams & O'reilly, 1998). There is much that we have learned from these perspectives, but despite the fact that theories have been advanced and research models have become more sophisticated, so far the main conclusion that has been drawn is that research on the relationship between team diversity and team performance is inconclusive (Harrison & Klein, 2007; Meyer, *in press*; van Dijk et al., 2012; van Knippenberg & Schippers, 2007). In the quest for making sense of the disparate findings, many researchers have refined the processes and parameters that inform the diversity-performance relationship (e.g., by looking at different dimensions of diversity, e.g., Srikanth, Harvey, & Peterson, *in press*; distinguishing between objective differences and diversity perceptions, e.g., Shemla, Meyer, Greer, & Jehn, 2016; focusing on moderators, e.g., Guillaume, Dawson, Otake-Ebede, Woods, & West, *in press*; examining subgroup formation and faultlines, Carton & Cummings, 2012). In the first part of our review, we take stock of these developments in diversity research and review how they unpack our understanding of the complexities of the diversity-performance relationship.

We conclude this first part by summarizing that the recent developments are promising, but are limited in scope for two reasons. First, they build on a tradition that focused on team statics (cf. Humphrey & Aime, 2014) and mainly examine what happens in diverse teams in the functioning phase (Ilgen, Hollenbeck, Johnson, & Jundt, 2005). Understanding what happens at the forming phase however is of critical importance to understanding team functioning, because from a dynamics perspective it is likely that what happens at the forming phase carries over to the functioning phase (due to path dependency, cf. Cronin, Weingart, & Todorova, 2011). Moreover, given that members' individual-level attitudes, behaviors and interactions in combination shape what happens at the emergent team level (Kozlowski & Klein, 2000), a proper understanding of phenomena at the team level necessitates an examination of dynamics at the individual level (i.e. microdynamics; Humphrey & Aime, 2014). Whereas relational demography researchers have focused on the individual-level consequences of diversity (Chattopadhyay, George, & Ng, *in press*; Tsui & O'reilly, 1989), a first attempt to integrate these individual- and team-level literatures has only been conducted recently (Guillaume et al., 2014), but still lacks a temporal, dynamic perspective.

Second, a more fundamental problem is that diversity research tends to bypass studying processes and outcomes that stem from beliefs we have about the typical characteristics of certain social categories memberships. With few exceptions, diversity researchers have not taken into account that members of different social groups are likely to be perceived and approached differently because of their membership in a given social category (e.g., the women members of a gender-diverse team may be perceived to be more capable at a certain task than the men members) and, in part as a consequence, may behave differently (van Dijk & van Engen, 2013). Given that the predominant theories and models in diversity research do not account for such category-dependent consequences of diversity, it may not be too surprising that their predictive validity is limited.

We argue that both shortcomings of the diversity literature can be overcome by integrating insights from the literature on stereotyping with diversity theory. Extant research on stereotyping indicates that stereotypes (a) initiate microdynamics the moment that group members meet and (b) cause members of different groups or categories to be approached and treated and to act differently. Yet surprisingly, the wealth of this literature on the consequences of stereotypes has hardly been touched upon in research on team diversity and performance. In parts two and three, we therefore review the large volume of research that shows that stereotypes can have pervasive effects on the attitudes and behaviors of individuals who are stereotyped (i.e. targets) *as well as* individuals who stereotype others (i.e. perceivers). In part two, we review the literature that shows how stereotypes initiate microdynamics in teams in the forming phase. We subsequently discuss in part three the literature that shows how stereotype-based microdynamics extend into the functioning phase and review the boundary conditions and contextual factors that play a role in whether and how stereotypes yield long-term consequences in team functioning and performance.

In the fourth and final part, we integrate the insights on the processes and microdynamics in diverse teams identified in the reviews of the diversity and stereotyping literatures into a model on the microdynamics of diversity and stereotyping in teams. We discuss how the model goes beyond the dual theoretical approach and improves our understanding of the positive and negative effects of team diversity on team performance. We conclude with offering a research agenda for the future and discussing the managerial implications of our review and model.

Part I: A Brief Review of the Diversity Literature

Team emergent processes and states are the core drivers of team performance (Carter, Carter, & DeChurch, *in press*), and team composition is one of the central inputs that colour emergent processes (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; van Knippenberg & Schippers, 2007). So it is not surprising that research on the effect of team diversity on team

performance has a long history (e.g., Pfeffer, 1983; Williams & O'reilly, 1998). The majority of current research on team diversity and on relational demography is rooted in the bi-theoretical approach to team diversity (Meyer, *in press*), as summarized in earlier reviews (e.g., van Knippenberg & Schippers, 2007; Williams & O'reilly, 1998). This approach builds on two theoretical paradigms, the social categorization perspective and the information/decision making perspective, which make opposing predictions regarding the effects of team diversity.

The social categorization perspective is rooted in both social identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Social identity theory posits that individuals derive a feeling of self-worth from the subjective experience of belonging to valued social groups, and that the positivity of perceived membership in one's social group (the in-group) is construed by a tendency to devalue other social groups (out-groups). This so-called intergroup bias, i.e. the automatic tendency to favor one's in-group over the out-group, is the core process for the attainment and maintenance of individual self-worth in social identity theory. Self-categorization theory, on the other hand, predicts *which* social categories become salient for ingroup-outgroup distinctions. According to the accessibility \times fit hypothesis (Turner et al., 1987; van Knippenberg, De Dreu, & Homan, 2004), social categories become salient when they are cognitively accessible (e.g., because of priming, recency effects, or habit) and when the distinction brought about by the category is a meaningful distinction for the given social context. The degree to which a distinction among a given category aligns with differences of the social situation is called comparative fit or meta contrast (Oakes, Turner, & Haslam, 1991; Turner et al., 1987), and higher meta contrasts increase the likelihood of a social category to become salient (see van Knippenberg et al., 2004). For example, differences between overweight versus slim team members are likely to be more salient in task contexts where physical fitness matters more (e.g., fire-fighters) compared to contexts where it matters less

(e.g., administrators). Social identity and self-categorization theories are typically invoked to predict negative outcomes of diversity, because according to these theories, pronounced differences in noticeable and/or work-related social categories are likely to become salient, resulting in intergroup bias among colleagues who are supposed to collaborate when outgroup members are devalued. Due to the reduced levels of trust and liking that are associated with intergroup bias, the social categorization perspective suggests that diversity in teams harms performance because it increases the likelihood of conflicts and decreases levels of cohesion, information exchange (van Knippenberg et al., 2004), and team identification (Guillaume et al., 2014).

Possible positive consequences of diversity for team performance are commonly explained by the information/decision making perspective (Guillaume et al., *in press*; Homan, van Knippenberg, van Kleef, & De Dreu, 2007a; Reagans, Zuckerman, & McEvily, 2004; van Knippenberg et al., 2004). The assumption here is that differences between members in demographic and work-related features result in different perspectives and different knowledge among members. Because teams are information processing units (Hinsz, Tindale, & Vollrath, 1997), diversity potentially increases the informational resources of the team, and the different views of diverse team members can stimulate constructive debate and a deeper elaboration of task-relevant information (van Knippenberg & Schippers, 2007). Therefore, if the task is structured in such a way that it can benefit from information elaboration, diversity can contribute to performance (van Knippenberg et al., 2004).

Given that the social categorization perspective and information/decision making perspective make opposite predictions about the effects of diversity (Williams & O'reilly, 1998), a substantial part of diversity research has revolved around strategies for reconciling these opposites. These strategies can be organized into four partly overlapping approaches (Meyer, *in press*): (a) attributing different outcomes to different types or dimensions of diversity (e.g., more positive team performance for task related versus demographic diversity,

see, for example Harrison, Price, Gavin, & Florey, 2002; Srikanth et al., *in press*; Zellmer-Bruhn, Maloney, Bhappu, & Salvador, 2008), (b) distinguishing between objective and perceived differences (while typically assuming that negative effects of diversity increase with the extent to which members are perceived to differ from each other, see Shemla et al., 2016, for a review), (c) contingency approaches that propose that the effects of diversity are contingent on moderating variables (e.g. task routiness, complexity, interdependence, team member motivation, Guillaume et al., *in press*; Joshi & Roh, 2009; van Knippenberg & Schippers, 2007), and (d) subgroup and faultline approaches, which propose that the negative effects of diversity are stronger when (subgroups of) members differ from each other on more than one attribute (e.g., when women team members are also younger than their men counterparts; Carton & Cummings, 2012; Meyer, Glenz, Antino, Rico, & González-Romá, 2014; Thatcher & Patel, 2011, 2012). Within the extent of the research in any of these four paradigms, temporal dynamics (processes and relationships of team diversity and outcomes altering over time) as well as level of analysis are seldom explicitly taken into account. Yet we will argue that these are central to understanding dynamics in diverse teams. Therefore, in the remainder of this section, we organize the review of the diversity literature by focusing on the level of analysis, moving from the individual team member and his or her individual dissimilarity from the team to subgroups and then team-level research. On each level, we integrate findings from the four above-mentioned approaches and also review findings pertaining to microlevel dynamics, if available.

The Individual in Relation to the Diverse Team: Relational Dissimilarity

We are not the first to notice that research on team diversity operates on different levels: a prior review (Guillaume, Brodbeck, & Riketta, 2012) distinguishes between the team-level compositional approach (see also Tsui & Gutek, 1999), which refers to “diversity as the distribution of differences among the members of a unit (e.g., team or organization) with respect to common attributes, such as demographics, personality, attitudes, and many

others” (Guillaume et al., 2012, p. 82) and the relational approach, which focuses on “the relationship between an individual’s characteristics (e.g., in respect to a demographic or personality attribute) and the distribution of these characteristics in the individual’s unit” (Guillaume et al., 2012, p. 82). Relational dissimilarity researchers thus examine the impact of differences between an individual and his or her team on individual-level outcomes. Research following the relational approach builds on the social categorization perspective (Chattopadhyay, Tluchowska, & George, 2004; Riordan, 2000) and commonly predicts negative consequences of dissimilarity for the individual (Guillaume et al., 2012). Within the relational approach, studies have examined the consequences of surface-level and deep-level diversity, a common distinction in the diversity literature (e.g., Harrison, Price, & Bell, 1998; Harrison et al., 2002; Phillips & Loyd, 2006). Surface-level diversity refers to differences on social categories that are easily visible such as age, gender, and ethnicity, while deep-level or cognitive diversity refers to underlying differences such as in personality, knowledge, or work styles. A meta-analysis investigating the effects of surface- and deep-level dissimilarity on social integration and individual effectiveness (Guillaume et al., 2012) found negative effects for both kinds of dissimilarity, but effect sizes were very small.

The individual perspective of the relational dissimilarity approach is also present in many studies investigating perceptions of team diversity. As Shemla and colleagues (2016) note, several researchers have asked their study participants to rate whether they perceive that they are different from their work unit with questionnaire items such as “I feel I am racially different from others on the team” (Cunningham, Choi, & Sagas, 2008, p. 171) or “I feel I am visibly dissimilar to other team members” (Hobman, Bordia, & Gallois, 2003, p. 312). When elicited in this way, perceived relational dissimilarity is commonly associated with negative outcomes for the individual (Shemla et al., 2016).

Of note, the relational approach accommodates the possibility that different members of a given team react to the composition of the team in different ways. For example, men and

women can react differently to sex dissimilarities with their team (Chattopadhyay, George, & Shulman, 2008), and the effects of self-to-team differences on negative emotions can be moderated by individual employee status (Chattopadhyay, Finn, & Ashkanasy, 2010). In this way, the relational approach to the consequences of team diversity is also aligned with contingency approaches. Furthermore, these examples show that moderators of the dissimilarity-outcome relationship exist on different levels of analysis, e.g. individual status and team-level diversity (Elvira & Cohen, 2001; Joshi, Liao, & Jackson, 2006). Temporal aspects such as individual tenure or team phases are rarely studied in the relational dissimilarity literature, but the studies that we did find on this subject (Chatman & Flynn, 2001; Sacco & Schmitt, 2005) suggest that the negative effects of relational dissimilarity decline over time.

In sum, diversity research with an individual-level focus has delivered results that are either inconclusive or characterized by small negative effect sizes. Dynamic and cross-level approaches are present, but they are not integrated on a theoretical level. For example, the most comprehensive model of the effects of dissimilarity (Guillaume et al., 2014) features multiple mediators and moderators of the diversity-outcome relationship without incorporating temporal dynamics or feedback loops.

Subgroup-Level Dynamics in Diverse Teams

Now that we have discussed the individual-level dissimilarity literature, we move up one level and review the studies focusing on different processes in different subgroups within a diverse team. This relatively new field of research is based on subgroup theory (Carton & Cummings, 2012), which proposes that a team can be split into subgroups based on faultlines, hypothetical dividing lines splitting a team into relatively homogeneous subgroups based on multiple member attributes (Lau & Murnighan, 1998, 2005; Meyer & Glenz, 2013). Research on the team-level effects of faultlines, which we review below, generally finds that the presence of faultlines inhibits team performance and effectiveness (see Thatcher & Patel,

2011; 2012, for meta-analyses). However, the subgroups that are created by faultline splits within a team have different properties, such as different sizes and different informational resources, that create a unique level of interdependence within a given subgroup (Carton & Cummings, 2012; 2013). Accordingly, one study found that members of larger subgroups are more likely to exhibit social loafing behavior, especially if they displayed low levels of social competence (Meyer, Schermuly, & Kauffeld, 2016). Similarly, members of homogeneous subgroups that include the leader of the team perform better than members of leaderless subgroups if the organization faces a crisis (Meyer, Shemla, Li, & Wegge, 2015). These findings show that diversity-related processes can operate between the individual and the team level of analysis. As such, they highlight the importance of microdynamic cross-level theories on the effects of team diversity, because the moderating factors that govern the effects of subgroup properties in these studies are situated on both the individual and the team level. Given that this field of research is relatively new and that only very few studies have investigated subgroup effects, it may not be surprising that findings integrating temporal dynamics are absent from subgroup level diversity research.

The Team-Level Compositional Approach to Team Diversity

The largest part of the diversity literature has focused on the group level of analysis, investigating how team-level diversity affects team-level outcomes such as creativity, conflict, and performance (Guillaume et al., *in press*; Nishii, 2013). Numerous meta-analyses summarizing this stream of research (Bell, Villado, Lukasik, Belau, & Briggs, 2011; Bowers, Pharmer, & Salas, 2000; Horwitz & Horwitz, 2007; Joshi & Roh, 2009; van Dijk, van Engen, & van Knippenberg, 2012) are inconclusive and have failed to identify a main effect of surface- or deep-level diversity. A finer distinction among different types of diversity, namely among separation diversity, disparity diversity, and variety diversity (Harrison & Klein, 2007) proposed positive effects for variety, but this prediction was also contradicted by meta-analytic findings (Bell et al., 2011; van Dijk et al., 2012). Therefore, it is now generally

accepted that there is no team-level main effect of objective diversity – regardless of which diversity type – on team performance (Mello & Rentsch, *in press*; Meyer, *in press*; van Knippenberg & Schippers, 2007).

Given that objective diversity does not have a main effect on team performance, several scholars proposed that perceptions of team diversity influence team performance, because perceived diversity may be more proximal to behavior than objective diversity (e.g., Zellmer-Bruhn et al., 2008). There is some empirical evidence supporting this assumption (Jehn, Northcraft, & Neale, 1999; Liao, Chuang, & Joshi, 2008; Zellmer-Bruhn et al., 2008), and the effects of perceived demographic diversity seem to decline over time, while the effects of deep-level diversity seems to increase (Harrison et al., 2002). However, these temporal effects of perceived diversity could not be replicated (Acar, 2010) and a recent review (Shemla et al., 2016) suggests that there is also no main effect of perceived diversity on team performance.

All of these findings speak to the importance of contingency theories of team diversity. These posit that the processes underlying potential positive and negative effects of diversity operate simultaneously. Reagans, Zuckerman and McEvily (2004) proposed that increasing demographic diversity increases the external network of a team, thereby increasing its potential access to external knowledge, while simultaneously decreasing the team's internal network density, thereby making it more difficult for the team to integrate this knowledge (cf. Crawford & LePine, 2013). Reagans et al. (2004) found empirical support for both processes, which indeed operated at such magnitudes that they cancelled each other out. Consistent with this, the Categorization-Elaboration Model (CEM; van Knippenberg et al., 2004) proposed that moderating variables (including team members' motivation, their task-related abilities, the extent of social categorization processes, and the degree to which members feel threatened by out-group perceptions) determine whether social categorization processes inhibit information/decision making processes (see also Guillaume et al., *in press*).

Several studies supported aspects of the CEM, such as the centrality of elaboration processes for the positive consequences of diversity (e.g., Homan et al., 2007a; Homan, van Knippenberg, van Kleef, & De Dreu, 2007b), the moderating effects of trait operationalizations of identity threat such as pro-diversity beliefs and openness (e.g., Hentschel, Shemla, Wegge, & Kearney, 2013; Homan et al., 2008; Homan et al., 2007a; Nakui, Paulus, & van Oudenhoven-van der Zee, 2011; van Dick, van Knippenberg, Hagele, Guillaume, & Brodbeck, 2008; Whitt, Edison, Pascarella, Terenzini, & Nora, 2001), and the moderating role of task motivation (Meyer & Schermuly, 2012). Further moderators that go beyond those explicitly mentioned in the CEM include certain leadership styles (Homan & Greer, 2013; Kearney & Gebert, 2009), team members' need for cognition (Kearney, Gebert, & Voelpel, 2009), norms (Mitchell & Boyle, 2015), and leader inclusiveness (Mitchell et al., 2015), to name only a few. Indeed, the central role of moderators for the effects of team diversity has been underscored by two meta analyses (Joshi & Roh, 2009; van Dijk et al., 2012), with the latter even suggesting that the diversity beliefs of the person rating team performance moderate the diversity-outcome relationship.

Team-level research on the effects of faultlines suggests that the distribution of multiple team member attributes on a continuum from cross-cut to aligned into (hypothetical) homogeneous subgroups also moderates the effects of diversity, such that stronger alignment makes negative effects more likely (Meyer, *in press*). The extent to which a team is divided into hypothetical homogeneous subgroups – the so-called faultline strength – can be understood as an operationalization of the meta contrast principle of comparative fit (Meyer, Shemla, & Schermuly, 2011) and thus makes social categorizations and intergroup bias between subgroups especially likely. Indeed, meta-analytic evidence shows negative main effects of demographic faultline strength on team performance and effectiveness (Thatcher & Patel, 2011; 2012). However, recent subgroup theory (Carton & Cummings, 2012) suggests that things may not be as simple as “faultline are always bad”, but suggests that the effects of

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3 faultlines depend on many contingency factors including the number and size of subgroups
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5 within a team and the type of attributes that are used to determine the faultline. For example,
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7 subgroup theory proposes that several evenly-sized subgroups that are split by an alignment of
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9 attributes that indicate knowledge, expertise, and background, can be beneficial for team-level
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11 performance. We are aware of one empiric study that supports this claim (Carton &
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13 Cummings, 2013). Therefore, in sum, while earlier faultline research that employed
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15 demographic attributes for determining faultlines and subgroup splits consistently yielded
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17 negative effects of faultlines, newer theory and findings indicate that just as single-attribute
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19 team diversity, faultlines can sometimes have negative and can sometimes have positive
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21 consequences.
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24 25 **The Need for a Microdynamic Perspective on the Diversity-Performance Relationship**

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27 The contradicting predictions of the bi-theoretical approach to diversity have been
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29 difficult to reconcile as evidenced by the numerous attempts mentioned above. No clear
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31 picture about the effects of diversity has emerged, other than that its effects depend on
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33 numerous moderating factors. A recent review of these contingencies (Guillaume et al., *in*
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35 *press*) identifies no less than six broad categories of moderators spanning multiple levels from
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37 the individual team member to the organization (strategy, unit design, human resource
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39 management practices, leadership, climate and culture, and individual differences among team
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41 members). Accordingly, there is a clear need for overarching theories integrating multiple
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43 levels of analysis, which is also evident in the fact that an increasing number of recent studies
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45 adopt multilevel frameworks (Joshi, *in press*; Joshi & Knight, 2015; Leslie, *in press*; Meyer et
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47 al., 2015; Richard, Stewart, McKay, & Sackett, *in press*). A microdynamic perspective is
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49 particularly necessary when considering temporal dynamics, which has been largely absent in
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51 diversity research (Cronin et al., 2011; Humphrey & Aime, 2014).
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56 Srikanth et al. (*in press*) in their recent review of the diversity-performance literature
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58 offer a first step towards a temporal, dynamic perspective on the consequences of diversity.
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However, their model is limited to the team level, whereas multilevel theory and research suggests that team-level phenomena emerge from individual members’ attitudes, behaviors and interactions – i.e. microdynamics that occur at the individual and interpersonal levels of analysis (e.g., Humphrey & Aime, 2014; Waller, Okhuysen, & Saghafian, 2016). In the following, we therefore review literature that allows insights into such microdynamics in diverse teams by starting with an individual member’s experiences the moment that the member meets his or her fellow team members, and from there discuss how microdynamics evolve over time and pave the way for emergent team-level processes. This choice is also driven by another, more fundamental problem that implicitly surfaced from our review of the diversity literature: Although diversity researchers have extensively studied and argued that the effects of diversity may be different for different dimensions of diversity (e.g., surface- vs. deep-level; Harrison et al., 2002; Srikanth et al., *in press*) or types of diversity (e.g., gender, age; Bell et al., 2011) with inconclusive results (van Dijk et al., 2012; van Knippenberg & Schippers, 2007); the sub-group and team diversity literatures have tended to treat different social categories (e.g., men, women) as equivalent. As such, a team that consists of, for example, one trainee and three seniors has been treated the same as a team that consists of three trainees and one senior. Relational dissimilarity research has however pointed out that experiences and behaviors differ for low-status members compared to their high-status counterparts (Chattopadhyay et al., 2010; see also van Dijk & van Engen, 2013). Given that a member’s status tends to depend on the member’s attributes (Berger et al., 1972), we argue that a coherent understanding of emergent team-level processes in diverse teams starts with a perspective on individual-level experiences and needs to be cognizant of how individuals’ experiences may be affected by their social category membership.

To that end, a caveat of the relational dissimilarity literature is that it lacks a temporal, dynamic perspective that is sensitive to how diversity-based attributions of members’ expertise, status and so forth may be apt to change over time. It is, for example, likely that

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3 dissimilarity evokes different reactions in ad hoc student teams whose members just meet
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5 each other in the lab for half an hour compared to teams of professionals that have been
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7 collaborating for years. Fortunately, there is a massive amount of literature available that
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9 assesses how individuals react and respond to differences starting the moment that individuals
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11 meet for the first time, and that surprisingly has seldom been accessed by diversity research to
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13 date; i.e research on stereotyping. In the following, we therefore review the research on
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15 stereotyping to increase our understanding of how differences between team members affect
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17 their experiences.
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20 21 **Part II: The Role of Stereotypes in the Forming Phase**

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23 Allport's definition of stereotypes as "exaggerated belief[s] associated with a
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25 category" (1954, p. 191) laid the groundwork for a surge of research on stereotypes by social
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27 psychologists. Researchers to date tend to define stereotypes as "cognitive structures that
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29 provide knowledge, beliefs, and expectations about individuals based on their social group
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31 membership" (Quadflieg & Macrae, 2011, p. 216-217). As such, stereotypes suggest, for
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33 example, that Germans are punctual, women enjoy shopping, and elderly people are hard of
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35 hearing.
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39 Social categorization is a prerequisite for stereotyping (Reynolds & Oakes, 2000). One
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41 must first identify a person as Black before applying stereotypes of Blacks to that person
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43 (Blair, Judd, Saddler, & Jenkins, 2002). Accordingly, stereotype activation depends on the
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45 same predictors as whether or not a person is socially categorized, i.e. the level of
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47 accessibility and fit mentioned earlier (Turner et al., 1987; van Knippenberg et al., 2004).
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49 Whether activated stereotypes are used for making inferences about a target depends on the
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51 extent to which making stereotype-based inferences are functional to the perceiver (Quadflieg
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53 & Macrae, 2012). There are two main functions of stereotypes. The first is *efficiency*.
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55 Stereotypes reduce the amount of effort that needs to be spent on gaining an impression of a
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57 person by streamlining which information is attended to and remembered (Biernat, 2003;
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Fiske & Neuberg, 1990). For example, the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2002; which is discussed below) suggests that stereotypes primarily aim to capture a target’s warmth and competence, which are argued to be the two most important features a perceiver should discern. Moreover, by creating a quick, global impression, stereotypes reduce uncertainty, which is especially useful in novel situations where lots of ambiguous and unspecified information demand attention (Allport, 1954; van Knippenberg & Dijksterhuis, 2000). Another way in which stereotypes drive efficiency is by simplifying communication: referring to a person in terms of his or her social group membership (e.g., Asian, Christian) conveys more meaning and information than a name of an individual (Gilbert & Hixon, 1991). The second function of stereotypes is *self-affirmation*. Stereotypes can regulate and boost self-esteem, for example by activating a negative stereotype about the social category an outgroup member belongs to when that person poses a threat to one’s self-esteem (Sinclair & Kunda, 1999; 2000). Further, stereotypes can legitimize inequality and uphold a belief of a just world by ascribing different qualities to members of advantaged and disadvantaged groups (Glick & Fiske, 2001; Jost & Banaji, 1994). In sum, when a person is subject to social categorization, the extent to which that person will also be a target of stereotyping depends on whether making stereotype-based inferences leads to efficiency benefits for the perceiver and the extent to which it facilitates the perceiver’s self-affirmation.

In this part, we clarify how these two functions of stereotypes create microdynamics in the forming stage of diverse teams. Specifically, we review theories and perspectives that examine how stereotypes shape initial impressions about targets and direct subsequent behavior towards and interactions with those targets. We start with discussing the Stereotype Content Model (Fiske et al., 2002), which suggests that people use stereotypes to assess a person’s warmth and competence. After providing a more in-depth explanation of how stereotypes lead to attributions of competence based on the Lack of Fit Model (Heilman, 1983) and Role Congruity Theory (Eagly & Karau, 2002), we discuss the proposition of the

Behaviors from Intergroup Affect and Stereotypes Map (Cuddy, Fiske, & Glick, 2007) that stereotype-based attributions cause stereotype-reinforcing behaviors towards a target. We subsequently clarify how stereotypes affect a target's self-attributions and behavior by discussing research on self-stereotyping, and affect a target's performance by discussing research on stereotype threat. We conclude each section by discussing the implications for diverse teams, given that the literature on stereotypes tends to rely on experiments with individuals, which may obscure the relevance for understanding the effects on microdynamics in organizational teams.

Stereotype Content Model

The Stereotype Content Model (SCM; Fiske et al., 2002) provides insight into what stereotypes aim to capture during the first moments that persons meet each other. The SCM is grounded in over fifty years of research suggesting that there are two fundamental dimensions of stereotypes people use to evaluate and judge each other: warmth and competence (e.g., Katz & Braly, 1933; Rosenberg, Nelson, & Vivekananthan, 1968; for recent reviews, see Abele & Wojciszke, 2014; Fiske, 2012). In fact, warmth and competence may account for as much as 80-90% of the variance in person impression (Fiske & Borgida, 2011; Wojciszke, 2005). Warmth (i.e. friendliness, trustworthiness, empathy, kindness, communion) captures a person's intent: is a person a friend who intends to help, or a foe who intends to hurt? Competence (i.e. intelligence, power, efficacy, skill, agency) captures a person's ability to act on this intent (Cuddy, Glick, & Beninger, 2011). In combination, these two dimensions enable a person to estimate what the other's goals are regarding the self or the group, and how effective the other will be in pursuing those goals¹.

There are groups that tend to receive high or low scores on both dimensions. For example, persons who are likely to be stereotyped as both warm and competent are ingroup members, allies, and the cultural default (examples in the Western world are men, Christians, heterosexuals, Whites, middle class, middle-aged). The SCM also predicts that warmth and

competence attributions elicit emotions, and the emotions that are shaped by persons who are stereotyped as warm and competent are pride and admiration. In contrast, persons who are likely to be stereotyped as both cold and incompetent are individuals who are perceived as having negative intent towards society and are unable to succeed on their own (e.g., homeless people and welfare recipients; Fiske et al., 2002). Contempt and disgust are the emotions that are elicited by these low warmth and low competence attributions according to the SCM.

The other two combinations of attributions are called ambivalent stereotypes, such that targets are either judged as warm-but-incompetent (paternalistic stereotypes), or competent-but-cold (envious stereotypes). Research on the SCM suggests that most outgroup members are subject to either of these ambivalent stereotypes. Paternalistic stereotypes have been shown in research on stereotypes and prejudice regarding race, age, dialect, and gender. Black people (Katz & Hass, 1986), older people (Cuddy & Fiske, 2002), speakers of nonstandard dialects (Ruscher, 2001), and women tend to be perceived among Western samples as less competent but friendly by others. The emotions that are shaped by such warm-but-incompetent stereotypes are pity and sympathy. In contrast, envious stereotypes portray target groups as competent but not sociable. Groups that in Western samples tend to be subject to such envious stereotypes include nontraditional women (e.g., career women, feminists, lesbians; Eagly, 1987; Glick & Fiske, 2001), Jews (Glick, 2002), and Asians (Lin, Kwan, Cheung, & Fiske, 2005). As is suggested by the name, the corresponding emotions for this combination of attributions are envy and jealousy.

The SCM also predicts that stereotype-based judgments result from socio-structural relations in two ways (Fiske et al., 2002; Russell & Fiske, 2008). First, perceptions of warmth depend on the extent to which the outgroup is perceived to be in competition with the ingroup. The more that an outgroup is perceived to compete with the ingroup or with society at large, the more the outgroup is judged as cold. In the absence of competition, more warmth can be attributed to members of an outgroup (e.g., women, gay men, Black professionals) than to

ingroup members (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Madera, Hebl, & Martin, 2009; Rudman & Goodwin, 2004). Second, status affects judgments of competence, such that groups with higher status are perceived as more competent than groups with lower status (Fiske, 2012). Correlational evidence has supported these relationships between competition and warmth and between status and competence in studies spanning more than 35 countries (Cuddy et al., 2009; Durante et al., 2013).

Whereas the SCM thus overall points at how stereotypes facilitate efficiency in impression formation, it also lays bare how stereotypes create biased perceptions of other persons. First, in aiming to gain a quick impression of another person's warmth and competence, judgments based on stereotypes of members who belong to specific social categories are likely to be inaccurate because they are based on generalizations. As Cuddy et al. (2011, p.74) point out, in a work context such misjudgments can lead to negative consequences:

Assuming warmth, or lack thereof, can lead decision-makers to miss warning signs that an apparently warm associate is untrustworthy or, conversely, to forgo a lucrative opportunity to form a partnership because a false gut reaction sparks mistrust. Assumptions about competence similarly can undermine effective decision-making, leading to a hiring decision that is soon regretted, for example.

Second, in suggesting that there is a negative relationship between warmth and competence, ambivalent stereotypes bias perceptions of outgroup members stereotyped as warm by making them appear less competent, and those stereotyped as competent by making them appear less warm (Judd, Hawkins, Yzerbyt, & Kashima, 2005). Working mothers, for example, are perceived as less competent than women without children, whereas women without children are perceived as less warm than working mothers (Cuddy, Fiske, & Glick, 2004; Kervyn, Yzerbyt, Judd, & Nunes, 2009). Not all studies show this trade-off between warmth and competence (e.g., Koenig & Eagly, 2014) which suggests the presence of moderators in determining whether warmth and competence negatively affect each other.

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3 However, a substantial number of studies have found evidence for such a trade-off (Kervyn,
4 Yzerbyt, & Judd, 2010), suggesting that ambivalent stereotypes at work pose substantial
5 threats to many groups because being evaluated as high on one dimension can negatively
6 affect evaluations on the other dimension.
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11 Third, the influence of competition and status on stereotype-based judgments further
12 inflicts bias in assessing a person’s warmth and competence. In an attempt to reduce
13 uncertainty and protect the self, competitive contexts determine judgments of warmth to
14 distinguish friend from foe, such that more competitive contexts enhance the perception of an
15 outgroup member as cold and of an ingroup member as warm (Fiske et al., 2002). Further,
16 attributing higher competence to members of high-status outgroups serves to uphold a just
17 world belief given that it justifies better treatment of members of advantaged, high-status
18 outgroups compared to members of disadvantaged, low-status outgroups.
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29 **Implications for diverse teams.** Assessments of warmth and competence are likely to
30 affect many decisions in organizations, including whom we trust, doubt, defend, attack, hire,
31 or fire (Cuddy et al., 2009). Whereas attributions of competence may be assumed to be more
32 important in task contexts, perceived warmth in fact is more important than perceived
33 competence when choosing a collaboration partner (Casciaro & Lobo, 2008; 2015) because
34 competence can be harmful when a person turns out to be a foe. Further, the shift from
35 command-and-control leadership towards transformational and ethical leadership indicates
36 that how leaders and potential leaders are evaluated has shifted, such that warmth has taken
37 more prominence (Koenig, Eagly, Mitchell, & Ristikari, 2011). Accordingly, not only
38 judgments of competence, but also judgments of warmth are used to make decisions at work.
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51 We posit that the SCM holds a number of important implications for understanding the
52 functioning of diverse teams. First, the SCM indicates that when a diverse team forms,
53 members are likely to rely on stereotypes to assess to what extent members intend to
54 contribute to the team’s goals (i.e. warmth) and to what extent members will be able to
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facilitate or harm the team's goals (i.e. competence). Second, when members who are different from the self are attributed higher levels of warmth [competence], it is likely that they are attributed lower levels of competence [warmth]. Third, when members who are different from the self are perceived as competitors, it reduces the extent to which they are seen as warm. Note that this corresponds with the notion that identity threat increases ingroup favoritism (van Knippenberg et al., 2004), but the specificity of the SCM in pointing at competition reducing warmth allows for more fine-grained and concrete predictions. Fourth, whereas diversity theory suggests that the main function of social categorization is to distinguish between ingroup and outgroup members and display ingroup favoritism, the SCM indicates that there are various outgroups and helps to distinguish reactions to such different outgroups. Some outgroups may, for example, be considered warmer than the ingroup (but less competent), while other outgroups may be the opposite, and yet others may be perceived as allies and thus as equally warm and competent. Accordingly, to understand dynamics between team members from different social groups, it is pivotal to go beyond categorizing them as ingroup or outgroup, and instead gain an understanding of how members see each other in terms of warmth and competence. Fifth, because we know that a member's status can be affected by his or her characteristics (Berger et al., 1972; van Dijk & van Engen, 2013), attributions of competence in diverse teams are likely to be biased in favor of members with high-status characteristics and against members with low-status characteristics.

Taken together, the SCM provides a relatively context-free theory on how stereotypes affect judgments about target members' warmth and competence based on their social category membership. As such, any prejudice against a person based on his or her social category membership can be interpreted as arising from an unfavourable stereotype that causes a person to be evaluated as lower in warmth or competence. Although such a context-free view is in line with classic theories of prejudice (e.g., Allport, 1954), it is incongruent with findings that (competence) stereotypes can differ across contexts. The standard example

here involves stereotype-based attributions of women’s competence. Although women are stereotypically depicted as less competent than men in leadership functions, they are assumed to be more competent when it comes to domestic or nurturing tasks (Eagly, 1987). Two theories that speak more elaborately about how competence stereotypes are context dependent are role congruity theory and the lack-of-fit model. We turn to these theories first before we look at how attributions of warmth and competence turn into behavior.

Lack of Fit Model and Role Congruity Theory

Heilman’s (1983; 2001; 2012) Lack of Fit Model and Eagly and Karau’s (2002) Role Congruity Theory are related theories that account for the context-dependency of stereotype-based attributions of competence. Both the lack of fit model and role congruity theory propose that for each job or position, there is a range of characteristics or competencies that are believed to be important for success (Eagly & Karau, 2002; Heilman, 2012). Specifically, both theories propose that stereotypes give rise to expectations about how a target will (descriptive aspect of stereotypes) and should (prescriptive or normative aspect of stereotypes) behave (i.e. a social role; Eagly, 1987). As such, the more that stereotype-based attributions of a target’s competencies based on a target’s characteristics or social role (e.g., the male gender role) fit or are congruent with the competencies that are deemed necessary to be successful on a given task or occupational role (e.g., the leader role), the more the target will be perceived as competent.

The lack of fit model and role congruity theory have both been predominantly used to account for prejudice against women leaders. Because the communal female stereotype or role is less congruent with the stereotypical leader than the agentic male stereotype or role, the lack of fit model and role congruity theory both predict that women are perceived as less competent leaders than men (Koenig et al., 2011). This ‘role incongruity’, or ‘lack of fit’ may result in two types of biases against women. The first, description-based bias, results from the mismatch people perceive between stereotypes of leaders and that of women, causing

1 perceivers to believe that women are less competent for a leader role and therefore
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3 overlooking women for leadership positions. The second, prescription-based bias, results from
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5 the normative aspect of stereotypes. When women leaders display leader-congruent agentic
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7 behavior, they violate gender role norms and can experience backlash, a topic we will cover in
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9 more detail later. That these stereotypes are tenacious becomes clear from a longitudinal
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11 Gallup (2014) survey in which respondents are asked whether they would prefer a man or
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13 woman as a boss. Despite meta-analytical evidence indicating that women leaders in fact are
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15 somewhat more transformational and participative, whereas men leaders are more autocratic
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17 (Eagly, Johannesen-Schmidt, & van Engen, 2003; Eagly & Johnson, 1990), respondents
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19 overall prefer men over women as bosses (see Figure 1). This finding is in line with the lack
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21 of fit model and role congruity theory, as is the trend towards convergence regarding the
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23 preference for a man or woman as boss: whereas gender stereotypes tend to remain constant
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25 (Lueptow, Garovich, & Lueptow, 1995), leadership stereotypes are apt to change such that
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27 communal attributes and behaviors are increasingly valued in leaders (Koenig et al., 2011),
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29 thereby creating an increasing level of fit or congruence between the female stereotype and
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31 the leader stereotype. But as the Gallup (2014) survey shows, this is an incremental and slow
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33 process.
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40 How easily stereotypical beliefs about ideal leaders can shift across task contexts has
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42 been argued and shown in various studies by Ryan and Haslam (2005; 2007; 2009; Ryan,
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44 Haslam, Hersby, & Bongiorno, 2011) on crises in organizations. Although they replicated
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46 other studies by finding that the ‘think manager – think male’ stereotype prevailed in
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48 organizations where things were going well, they found something different for organizations
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50 that were in the middle of a crisis. In such organizations, women leaders were preferred over
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52 men leaders given that the “people management” abilities that are assumed to be important in
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54 times of crises are more congruent with the female stereotype. As such, research on the lack
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of fit model and role congruity theory has documented well how competence attributions vary across task contexts depending on the prevailing task/role stereotypes.

Implications for diverse teams. There is a general awareness among diversity researchers that the effects of team diversity may be context-dependent. For example, the meta-analysis by Joshi and Roh (2009) indicates that team diversity has different relationships with performance for different industry contexts. Whereas demographic diversity was negatively related with performance in the high-tech industry, it was positively related with performance in the service sector. In contrast, job-related diversity was positively related with performance in the high-tech industry, but had a nonsignificant relationship with performance in the service sector. These findings, although not replicated in a subsequent meta-analysis (van Dijk et al., 2012), point at the importance of understanding the industry context when assessing the consequences of team diversity.

The lack of fit model (Heilman, 1983; 2012) and role congruity theory (Eagly & Karau, 2002) go even further by pointing out that attributions – which form the basis of subsequent behaviors, interactions and performance as we explain below – are likely to differ by task context. A first, rather straightforward implication for team diversity is that the prevalent task-specific stereotypes and their relevance for each type of diversity need to be understood to comprehend the microdynamics in diverse teams (cf. Maloney, Bresman, Zellmer-Bruhn, & Beaver, 2016). The perceived value of, for example, a person with a background in physics may differ depending on whether the task at hand involves engineering or management.

A second implication of the lack of fit model and role congruity theory is that different categories of a diversity type cannot be treated as conceptual equivalents, which is common practice in diversity research. For example, a team consisting of three men and one woman tends to be considered equally diverse as a team consisting of three women and one man. However, given a context where gender stereotypes suggest that gender predicts task

competence, one of these teams consists of three members who are attributed low levels of competence (and one high), whereas the other consists of three members with high levels of attributed competence (and one low). Theory and methodology on diversity as disparity (Harrison & Klein, 2007; van Dijk & van Engen, 2013) points out that the dynamics in such teams are likely to differ (cf. Chatman et al., 2008), which means that they need to be conceptualized and operationalized differently.

Third, competence attributions are likely to differ across tasks in diverse teams. Given that many teams work on a variety of tasks and are multidisciplinary, socio-structural relationships between members may be best characterized as a heterarchy, meaning that whether a particular member is considered more- or less-competent varies across (sub-) tasks (Aime, Humphrey, DeRue, & Paul, 2014). Compared to homogeneous teams, in diverse teams the disparate competence attributions thus facilitate the emergence of a heterarchy (cf. van Dijk & van Engen, 2013).

In sum, the lack of fit model and role congruity theory specify how attributions of competence are affected by the task context. As mentioned before, perceivers make such competence (and warmth) judgments to know how to behave and interact with a target. In the following section, we therefore turn to the question what kind of behaviors are likely to result from stereotype-based attributions of warmth and competence.

Behaviors from Intergroup Affect and Stereotypes Map

The Behaviors from Intergroup Affect and Stereotypes (BIAS) Map (Cuddy, Fiske, & Glick, 2007) is an extension of the SCM that indicates what behavioral reactions are elicited by stereotypes. In short, the BIAS Map posits that the emotions that are the result of warmth and competence stereotypes (i.e. admiration, contempt, pity, envy) shape corresponding behavior. These four behaviors are active facilitation, passive facilitation, active harm, and passive harm (see Figure 2).

Active behaviors are “conducted with directed effort to overtly affect the target” (Cuddy et al., 2007, p. 633). As such, they are behaviors aimed to either benefit or harm the target (e.g. through assisting or attacking, respectively). Passive behaviors “are conducted or experienced with less directed effort but still have repercussions for (...) the target” (2007, p. 633). These behaviors thus benefit or harm the target in a more indirect way (e.g., through getting along or neglecting, respectively). Because perceived warmth assesses a target’s intentions towards the perceiver and thus has more direct implications for the perceiver, the BIAS map suggests that attributions of warmth require a more active response than competence attributions. Targets who are perceived as warm are actively facilitated, whereas targets who are perceived as lacking warmth are actively harmed. Passive behaviors then result from attributions of competence, such that targets attributed with higher levels of competence are passively facilitated, whereas those perceived as lower in competence are passively harmed.

Accordingly, the BIAS map posits that targets who are admired because they are attributed high levels of warmth and competence, will be actively as well as passively facilitated (Cuddy et al., 2007; 2011). Examples include help, support, endorsements and affiliations that are offered to members from the ingroup, reference groups, and allies. In contrast, targets who elicit contempt due to low levels of perceived warmth and competence are posited to be actively as well as passively harmed. Such resented groups may be subject to harassment, discrimination, bullying, gossip and neglect. Active facilitation and passive harm are proposed to characterize behaviors towards those who are pitied because they are perceived as warm but less competent. Consider, for example, older workers who may be actively helped when they ask for support but are provided less access to training than younger workers (Buyens, van Dijk, Dewilde, & De Vos, 2009; see also research on dependency-oriented help, e.g., Nadler, 1997; 2002). Finally, the BIAS map proposes that targets who are subject to envious stereotypes due to low attributed warmth and high

1 attributed competence fall prey to active harm and passive facilitation. Examples include
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3 subtle discrimination (Cortina, 2008; van Laer & Janssens, 2011) and many types of
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5 opportunistic behavior where perceivers associate themselves with a target as long as it
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7 benefits them, but renounce the target the moment that the (s)he is no longer of benefit to the
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9 perceivers (Carson, Madhok, & Wu, 2006; Popov & Simonova, 2006).
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14 In two correlational studies (including a representative U.S. sample) and two
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16 experiments, Cuddy et al. (2007) found support for the BIAS map. A number of studies in
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18 different countries and settings have provided further support for the predictions advanced in
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20 the BIAS map that warmth and competence stereotypes elicit specific emotions that translate
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22 into corresponding behaviors towards the targets of the stereotypes (Asbrock, Nieuwoudt,
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24 Duckitt, & Sibley, 2011; Becker & Asbrock, 2012; Krings, Johnston, Binggeli, & Maggiori,
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26 2014; Sweetman, Spears, Livingstone, & Manstead, 2013; Ufkes, Otten, van der Zee, Giebels,
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28 & Dovidio, 2011; van Rijssen, Schellart, Berkhof, Anema, & van der Beek, 2010; Wiener,
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30 Gervais, Brnjic, & Nuss, 2014; but see Rogers, Schröder, & Scholl, 2013).
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34 **Implications for diverse teams.** The main implication of the BIAS Map for diverse
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36 teams is that perceivers tend to act on their stereotypes in a manner that is congruent with the
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38 emotions that are elicited by the stereotype. From a functional perspective, this is
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40 understandable given that stereotypes function as a first assessment of how to act or behave
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42 towards targets. However, given the biases in stereotype-based evaluations, the BIAS Map
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44 also makes clear which two groups of targets are likely to suffer from being stereotyped.
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47 First, because many outgroups are likely to be attributed lower levels of warmth, they
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49 are more likely to be harmed and less likely to be facilitated compared to ingroup members. In
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51 diverse teams, this means that whether members are likely to be a cohesive and cooperative
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53 unit depends on whether they perceive each other as a diverse set of ingroup and outgroup
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55 members, or whether they perceive each other as allies who are part of the same team. If such
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57 a superordinate team identity is salient, members may be able to look beyond their initial,
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social category-based judgments and hence treat each other – regardless of how different from the self – as equal (Haslam, Eggins, & Reynolds, 2003; Hogg & Terry, 2000; Sethi, 2000).

Second, many outgroups are perceived as lower in competence compared to the ingroup. This increases the chances that members of such outgroups are (passively) harmed and reduces the likelihood that they are (passively) facilitated. Specifically, this means that members whom are attributed low levels of competence receive less room and opportunity to participate – exactly the kind of perpetuating behavior that reinforces and maintains low competence attributions (Magee & Galinsky, 2008). Moreover, given that such competence attributions in (diverse) teams to a large extent determine team members’ status (Berger et al., 1974; van Dijk & van Engen, 2013), this suggests that when a target member initially is attributed low status, it may be very difficult for him or her to attain a higher status (cf. Gould, 2002).

The BIAS map thus paints a rather gloomy picture of how in diverse teams, target members who are perceived as less warm and/or less competent are treated by their fellow team members. Once perceived as such, targets will be treated in a way that reinforces the initial, stereotype-based perceptions (cf. Metiu, 2006; Snyder, Tanke, & Berscheid, 1977). This raises the question what kind of behavior stereotyped persons must display to counter such negative attributions. In the following, we therefore switch perspective and instead of discussing how stereotypes about others affect how we treat them, we review research that considers how stereotypes about oneself affects one’s own behavior.

Self-Categorization and Self-Stereotyping

Individuals not only categorize and stereotype others, they also categorize and stereotype themselves. Self-categorization theory (Turner et al., 1987) indicates that the determinants of categorizing oneself are similar to those of categorizing and stereotyping others. Specifically, self-categorization theory posits that the formation and salience of a self-category depends on the presence of differences (comparative fit; Hogg & Turner, 1987) that

are meaningful for making a distinction into social categories (normative fit; Oakes, Turner, & Haslam, 1991; Turner et al., 1987). In other words, the team context affects what characteristics will become salient and used for self-categorization (Nishii, 2013; van Knippenberg et al., 2004). For example, in an all-men team context, without women to provide a comparison, team members are not likely to categorize themselves as men. However, in a gender diverse team the presence of men and women encourages individuals to categorize themselves as men or women team members, respectively. This is especially likely when gender is also perceived to be meaningful in the specific context: the more that gender is stereotypically believed to predict value or contribution, the more likely it is that a person will categorize herself [himself] as a woman [man].

Because categorization activates stereotypes, self-categorization also leads to self-stereotyping (Turner et al., 1987). Self-stereotyping is defined as “the systematic process of seeing oneself as having the characteristics and behaviors that are associated with the group” (Oswald & Lindstedts, 2006, p. 448). Because the function of self-categorization is to satisfy the need for belonging and derive positive self-esteem, self-stereotyping can be problematic when faced with negative stereotypes that pose a threat to one’s positive social identity. A number of studies indicate that individuals manage this threat in two distinct ways. The first is by being selective about the group with which one identifies. When multiple identities are salient, individuals are more likely to identify with the social category that is accorded the highest status (Chattopadhyay, Tluchowska, & George, 2004; Tajfel & Turner, 1986). Especially when a person is categorized by others in a way that the person deems irrelevant (e.g. based on one’s gender or ethnicity in a management context), the person is likely to resist the imposed categorization (Barreto & Ellemers, 2001; Hornsey & Hogg, 2000). The second way individuals manage the potential threat of being confronted with negative stereotypes is by being selective in internalizing characteristics and behaviors that are stereotypically associated with the particular category with which a person identifies (Biernat,

Vescio, & Green, 1996; Oswald & Chapleau, 2010; Oswald & Lindstedt, 2006). *Selective self-stereotyping* as such refers to the process by which a person internalizes positive group stereotypes and distances him or herself from the negative stereotype. Negative stereotypes may still be endorsed as characterizing the group, but when engaging in selective self-stereotyping, they are refuted as representative of the self.

Whereas the processes and determinants of self-categorization and self-stereotyping are similar to those of the categorization and stereotyping of others, self-categorizations and self-stereotypes are not necessarily congruent with others' categorizations and stereotypes of oneself. The more negative a categorization or stereotype attributed by others, the more likely it is that it is incongruent with a person's self-categorization and/or self-stereotype. This is not to say that self-categorizations and self-stereotypes are independent of others' categorizations and stereotypes, nor that individuals refrain from internalizing any negative stereotype. First, the more a person identifies with and is committed to a group, the more likely it is that the person internalizes a negative stereotype (Ellemers, Spears, & Doosje, 2002). In fact, a series of four experiments indicate that self-stereotyping (without being selective) actually increases when faced with negative ingroup stereotypes for individuals with high levels of ingroup identification, because it is easier to battle such a threat as a collective than as an individual (Spears, Doosje, & Ellemers, 1999; see also Turner, Hogg, Turner, & Smith, 1984). Second, a person is more likely to internalize a negative stereotype when others close to the person (e.g. family, close friends) endorse the negative stereotype as relevant to the person (Sinclair, Hardin, & Lowery, 2006). For example, the widespread view that women are worse at math and science than men may explain why women tend to internalize this negative stereotype (Oswald & Chapleau, 2010).

Implications for diverse teams. Because the mere presence of diversity increases the salience of distinct categories, diversity is likely to initiate the process of self-categorization and self-stereotyping. Although to date there has been no study examining whether warmth

and competence are also the core dimensions underlying self-stereotypes, there is no reason to assume that they are not – especially given that (self-)stereotypes are used to contrast and compare oneself with others (cf. Festinger, 1954).

An important implication of this line of research is that self-attributions in diverse teams may differ from perceivers' attributions. The more a target is subject to negative stereotypes, the more likely it is that the target will engage in selective self-stereotyping and self-other attributions will be incongruent. In Parts III and IV, we outline that such incongruencies can create negative microdynamics that result in conflict and harm team performance, given that perceivers may consider a target's behavior to be ill-fitting and inappropriate based on the stature attributed to the target. Interestingly, meta-analytical findings indicate that selective self-stereotyping occurs more in lab-created teams than in real-life teams (Mullen, Brown, & Smith, 1992), which may be due to members identifying more with real-life teams and being closer to each other in real-life teams compared to lab-created teams. Self-other attributions are thus more likely to be congruent under high levels of team identification and social cohesion.

There is however obviously a limit to how much members internalize negative stereotypes, as they represent a clear threat to a person's identity and self-esteem. In the following, we therefore focus on how negative stereotypes affect a person's behavior and performance.

Stereotype Threat

Stereotype threat refers to “the psychological experience of a person who, while engaged in a task, is aware of a stereotype about his or her identity group suggesting that he or she will not perform well on that task” (Roberson & Kulik, 2007, p. 26). This awareness of the stereotype can be due to self-stereotyping, stereotyping by others, or both. Ever since Steele and Aronson (1995) argued and showed that stereotype threat impairs performance and consequently creates a self-fulfilling prophecy by confirming negative competence

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3 expectations, a vast number of researchers have tried to further qualify these findings. A
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5 review by Wheeler and Petty (2001) largely confirmed that stereotype threat occurs. In fifteen
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7 out of 21 studies, participants behaved in a manner congruent with a negative stereotype (in
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9 five studies there was no effect, in one study there was a contrast effect). In two meta-
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11 analyses, Walton and Spencer (2009) showed that stereotype threat negatively affects the SAT
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13 Math score of women, African and Hispanic Americans with just under one-fifth of a standard
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15 deviation.
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19 What makes these findings of stereotype threat research particularly interesting, is that
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21 they mainly focus on situations in which a person engages in selective self-stereotyping, i.e.
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23 does *not* consider the negative stereotype as applicable to the self. In their conceptual review,
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25 Schmader, Johns and Forbes (2008) posit that stereotype threat is the result of a cognitive
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27 imbalance among the concept of one’s ingroup (i.e. I am like my group), the concept of the
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29 ability domain (i.e. my group does not have this ability), and the concept of the self (I have
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31 this ability). Participants in these situations thus engage in self-categorization by identifying
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33 with a target group while being selective in self-stereotyping by distancing themselves from
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35 the negative stereotype pertaining to the task at hand. Despite this, the stereotype still
36
37 negatively affects the target’s performance.
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41 Schmader et al. proposed that the mechanisms underlying this negative effect of
42
43 stereotypes on performance are threefold. First, stereotype threat is thought to impair
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45 performance because the cognitive imbalance motivates a person to avoid failure by more
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47 closely monitoring his or her performance. Because conscious monitoring consumes working
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49 memory, it can be detrimental to performance. Second, stereotype threat is known to increase
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51 negative thoughts and feelings such as self-doubt and anxiety (e.g., Stangor, Carr, & Kiang,
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53 1998; Steele & Aronson, 1995). In trying to regulate and suppress such thoughts and feelings,
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55 people tax their working memory. Third, the cognitive imbalance is likely to increase arousal,
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57 distress or discomfort, which leads to a physiological stress response. Although stress can
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3 enhance performance when it increases focused attention, it is likely to disrupt performance
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5 when sustained attention is required because that taxes one's working memory, which comes
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7 at the expense of the cognitive resources available for performing the task (Schmader et al.,
8
9 2008). In support of this explanation, Nguyen and Ryan (2008) meta-analytically showed that
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11 stereotype threat inhibits performance on difficult tasks but not on easy tasks that require less
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13 cognitive resources.
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16 Interestingly, when confronted with a negative stereotype even members of normally
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18 high-status groups tend to experience a performance detriment (Roberson & Kulik, 2007). For
19
20 example, white men performed worse on an athletic task than black men when a negative
21
22 stereotype about white men's physical ability was made salient (Stone, Lynch, Sjomeling, &
23
24 Darley, 1999). Another study showed that whites performed worse on an implicit racism test
25
26 when they were told that the test was diagnostic of racism (Frantz, Cuddy, Burnett, Ray, &
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28 Hart, 2004). Finally, men made more errors in indicating whether words were affective or not
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30 after they were told that men are less capable than women in dealing with affective
31
32 information (Leyens, Désert, Croizet, & Darcis, 2000), and performed worse than women on
33
34 a test of social insensitivity when they were told that women perform better on that test (but
35
36 not when they were told that the test assessed information processing) (Koenig & Eagly,
37
38 2005). Stereotype threat thus affects all people who are negatively stereotyped. However,
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40 because there are more negative stereotypes pertaining to low-status groups, low-status group
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42 members are more likely to suffer from stereotype threat than members of high-status groups.
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47 **Implications for diverse teams.** Self-categorization theory (Turner et al., 1987)
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49 indicates that the presence of actual differences that are perceived as meaningful for a task at
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51 hand increases stereotype salience. Members of diverse teams who are facing a negative
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53 stereotype thus are likely to perform worse and confirm the stereotype. This is particularly
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55 likely for solo (Sekaquaptewa & Thompson, 2003; Thompson & Sekaquaptewa, 2002) or
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57 token (Kanter, 1977; Roberson, Deitch, Brief, & Block, 2003) members in a team, given that
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being a small minority makes the disparate characteristic stand out and, hence, increases stereotype salience. Sekaquaptewa and Thompson (2003), for example, found that solo women in a gender-diverse team performed worse than nonsolo women on a math task.

While the detriments of negative stereotypes on individual members’ performance may be limited to complex task settings, these are exactly the settings that tend to require a diverse composition and where diverse teams tend to outperform homogeneous teams (van Dijk et al., 2012). As such, stereotype threat may, at the individual level, hurt the most where diversity is most needed. At the team level, there is evidence suggesting that the negative effects of stereotype threat may be attenuated. Aramovich (2014) found that all-women teams facing stereotype threat performed as well as all-women teams not facing a threat on a logical reasoning task, while outperforming individual women participants. Moreover, teams under threat reported similar concerns about the stereotype as individuals under threat, but teams under threat made less problem-solving errors than individuals. Accordingly, Aramovich’s findings suggest that the team context does not diminish individuals’ experience of stereotype threat, but increases the capacity to monitor performance. Although Aramovich studied all-women teams and these findings need empirical validation for diverse teams, we therefore have reason to expect that the detrimental effects of stereotype threat are reduced under higher levels of task interdependence.

Integrative Summary: Stereotypes in the Forming Phase

In sum, in line with the idea that stereotypes serve the function of providing a quick assessment of how to behave and interact with others in a given situation, the literatures reviewed above indicate that stereotypes cause reinforcing behavior. Targets who are stereotyped as warm and competent are treated with warmth and are facilitated, whereas targets who are perceived as lacking warmth and competence are avoided, or even treated with hostility. Targets who are subject to ambivalent stereotypes are treated ambivalently, for example by displaying paternalistic behavior towards targets who are stereotyped as warm but

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3 incompetent. Besides the stereotype-reinforcing behavior of perceivers, targets also tend to
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5 engage in and act based on self-stereotyping, for example by deferring more to perceivers
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7 when identifying with a low-competence stereotype. Even when such an individual distances
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9 him- or herself from such a negative competence stereotype, on complex tasks the stereotype
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11 is still likely to negatively affect the target's performance because the negative stereotype
12
13 taxes the target's working memory.
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16 In line with the idea that stereotypes also serve to regulate and boost self-esteem, the
17
18 literatures above indicate that stereotypes pertaining to members of other social categories
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20 (i.e., to outgroup members) are frequently ambivalent. Except for close allies and the cultural
21
22 default, many outgroup members are seen as less warm when they are perceived as
23
24 competent, or as less competent when they are perceived as warm. As such, it is always
25
26 possible for a perceiving member to appear favorable (i.e. as either warmer or more
27
28 competent) when comparing oneself with a target outgroup member. Whereas this self-
29
30 affirming tendency is likely to create incongruences between self- and other's attributions, the
31
32 reinforcing effects of stereotypes suggest that such incongruences are not likely to disappear
33
34 automatically. As such, they may have a long-lasting impact, for example by inhibiting a
35
36 target member's performance in the case of negative competence stereotypes.
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40 So how can these reinforcing microdynamics that are due to stereotyping be altered?
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42 In the following part, we review the literatures on two potential answers to this question. The
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44 first involves research on the question of whether stereotype-based attributions fade as
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46 members work together for a longer time period. The second involves research on the
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48 question of whether stereotype-incongruent behavior is likely to alter initial stereotype-based
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50 attributions. To assess each of these two possibilities, we review literature on the longer-term
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52 effects of stereotypes. As such, we move beyond the forming stage where members assess
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54 each other's worth based on first impressions, and move to the functioning phase where
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members are supposed to be able to know each other better. How prominent will the reinforcing effects of stereotypes still be in such situations?

Part III: The Role of Stereotypes in the Functioning Phase

Impression Formation

Not all attributions are based on stereotypes. The more team members get to know one another, the more they are exposed to individuating information (e.g., attitudes, beliefs, skills, behaviors) that provides a richer understanding of a target member. Research on impression formation examines how perceivers combine stereotype-based attributions and individuating information to form an impression of a target.

Since its publication, Fiske and Neuberg’s (1990) continuum model has received widespread support (Fiske, Lin, & Neuberg, 1999) and has been the predominant model in the literature on impression formation (Swencionis & Fiske, 2014; but for a slightly different model, see Brewer, 1988; Kunda & Thagard, 1996). The continuum model, which is displayed in Figure 3, suggests that after the initial stage of social categorization, perceivers allocate more attention to a target’s attributes when there is a reason for the perceiver to do so, i.e. when the target has a certain relevance to the perceiver. If the attribute (i.e. piece of individuating information) is perceived to be congruent with the initial categorization (e.g., a man behaving assertively), then the confirmatory categorization will determine the perceiver’s attitudes, cognitions and behaviors towards the target. In case the attribute is perceived to be incongruent with the initial categorization (e.g., a man behaving communally), the perceiver will attempt to find a different category that provides a better fit. This process of ‘recategorization’ (1990, p. 7) usually entails accessing a subcategory (e.g., gay), but can also entail accessing an exemplar (e.g., my brother John) or creating a new category (e.g., a sociable person). Either way, the benefit of recategorization for the perceiver is that he or she no longer needs to tax the working memory on forming an impression given that the

recategorization will determine his or her attitudes, cognitions and behaviors towards the target.

If recategorization fails or does not suffice, the perceiver will engage in what Fiske and Neuberg (1990, p. 8) called 'piecemeal integration', i.e., a process of integrating all information in an attribute-by-attribute fashion in order to arrive at a final impression of the target. As such, piecemeal integration represents the stage in which impression formation is based the most on individuation and where the initial categorization will only be of minor impact. For example, in an ethnographic study of a team of software developers located in the United States (U.S.) and India, a U.S.-based engineer at a certain point exclaimed about an Indian engineer he got familiar with: "Why do we need India anyway? We should just hire Gautam" (Metiu, 2006, p. 429). Finally, the continuum model suggests that regardless of whether an impression is formed based on initial categorization, confirmatory categorization, recategorization, or piecemeal integration; a perceiver may always feel the need to reassess a target and decide to spend more attentional resources to form an impression, until the implicit decision is made that no further assessment is needed.

Inhibitors of individuation. At first blush, the continuum model seems to propose a dynamic process that over time will result in category-based impressions fading away because members get to know each other better and better. However, such an understanding of the process of impression formation is too simplistic:

Much research on impression formation implicitly assumes that the goal of impression formation is, or should be, accuracy. However, accuracy is seldom the only goal regulating impression formation processes, because outcomes also matter (Einhorn & Hogarth, 1978; Friedrich, 1993). Except in laboratory experiments, people cannot always afford to continue to sample events or individuals if they believe the outcome will be negative. (Denrell, 2005, p. 968)

Indeed, instead of perceiving impression formation as aiming for accuracy, the continuum model indicates that the main aim of impression formation is *efficiency*, i.e. forming an impression of a target that is as accurate as possible in a way that consumes the least amount

of cognitive effort. To that end, the continuum model is established on a number of premises that suggest that perceivers are likely to stop forming an impression of a target in one of the earlier, category-based stages.

A *first* premise is that perceivers give priority to categorization over individuation. This does not only show in the fact that a perceiver first tries to categorize a target before individuation takes place (but see Kunda & Thagard, 1996), but also in several biases that steer a perceiver towards categorization. For example, the anchoring bias (or primacy effect) causes perceivers to rely more heavily on information that is offered first. In an early study, Anderson (1965) showed that the influence of additional pieces of information in impression formation when three adjectives were offered decreased linearly (see also Denrell, 2005; Tversky & Kahneman, 1974). Further, confirmation bias (for a review, see Nickerson, 1998) causes perceivers to pay more attention to information that confirms their pre-existing beliefs compared to disconfirming information. As such, perceivers are more likely to seek as well as pay attention to information that supports an initial categorization. Well-documented assimilation effects (Darley & Fazio, 1980; Gawronski, Geschke, & Banse, 2003) show that anchors are also used to value and interpret subsequent information in such a way that they confirm initial beliefs, ideas, and – relevant to our argument – observations.

A *second* premise of the continuum model that indicates how impression formation prioritizes categorization over individuation is that a perceiver must pay attention (i.e. tax the working memory) to attributes in order to individuate (Fiske & Neuberg, 1990). When a perceiver is confronted with an attribute that is inconsistent with the initial categorization, he or she needs to spend more attentional resources to form an impression compared to when the attribute is consistent with the initial categorization. As a consequence, if a perceiver has limited attentional resources, (s)he is likely to stick with category-based impressions given that these come to a perceiver at no or little cost. Implicit association tests (Greenwald, McGhee, & Schwartz, 1998; Nosek, Greenwald, & Banaji, 2005) are grounded in this

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3 premise, given that they suggest that perceivers rely more on a stereotype when they take
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5 longer to process a stereotype-inconsistent pair of words (e.g., woman, engineer) compared to
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7 a stereotype-consistent pair (e.g., man, engineer).
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10 Finally, a *third* premise of the continuum model that indicates how individuation is
11 inhibited is that progress along the continuum depends on a perceiver's impression formation
12 motivation. Fiske and Neuberg (1990) posit that the effect of impression formation motivation
13 on impression formation is determined by three factors: (a) what the perceiver wants, (b) who
14 controls what the perceiver wants, and (c) what the criteria are for attaining the desired
15 outcome. Consider a team manager of a diverse team whose main motivation is the approval
16 of his or her boss. If the boss' approval mainly depends on how much the manager enhances
17 the team's functioning, the manager is much more likely to pay attention to the individual
18 team members and engage in individuation than when the boss' approval mainly depends on
19 the two of them personally getting along. Alternatively, if the main motivation of the manager
20 is self-approval, the manager is more likely to individuate team members when he or she
21 values getting the best out of the team, as opposed to when the manager mainly values not
22 being disturbed. As a consequence, this third premise suggests that individuation will only
23 take place when a perceiver is (intrinsically or extrinsically) motivated to do so, but that a
24 perceiver otherwise will refrain from paying attention to a target's individuating attributes
25 (Goodwin, Gubin, Fiske, & Yzerbyt, 2000; Neuberg & Fiske, 1987). In line with these
26 premises, Nelson, Acker and Manis (1996) found that even under conditions that should be
27 ideal for individuation, perceivers tend to rely on stereotypes when judging targets.
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49 **Implications for diverse teams.** The interdependent nature of teams is likely to
50 enhance members' motivation to get to know each other and move beyond the stage of initial
51 categorization. However, the impression formation literature suggests that members in diverse
52 teams may opt for and stick with confirmatory categorization or recategorization, which
53 means that perceiving members will continue to use target members' characteristics and
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3 corresponding stereotypes as a guide for their behavior towards target members. Moreover,
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5 the continuum model suggests that the burden of proof lies with the target member:
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7 perceiving members will not actively look for stereotype-disconfirming evidence, so
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9 individuation may only occur after a target member displays stereotype-disconfirming
10
11 behavior.
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14 Accordingly, impression formation research suggests that the effects of stereotyping
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16 on members' behavior may carry on for a long time - well into the functioning phase. The
17
18 only thing causing stereotype-based attributions and corresponding behaviors to fade is when
19
20 targets display stereotype-disconfirming behavior. However, even then stereotype-based
21
22 attributions may not be abandoned, given that assimilation effects may occur, or a perceiver's
23
24 working memory may already be taxed to such an extent that he or she is unable to process
25
26 individuating information. Again, then, it seems that stereotype-based attributions are most
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28 likely to prevail in complex task environments that require members' full attention, i.e. those
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30 situations where diversity in teams is supposed to be most beneficial (van Dijk et al., 2012).
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34 We can therefore conclude that even in the functioning phase, members of diverse
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36 teams will frequently continue to rely on stereotypes for guiding their behaviors towards other
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38 team members. The continuum model suggests that this may only change when target
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40 members display behavior that is perceived by others as stereotype-disconfirming. However,
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42 whereas the continuum model suggests that at such a moment individuation actually takes
43
44 place and members may truly get to know each other, research on disconfirming stereotypes –
45
46 better known as the *backlash* literature - indicates otherwise. It is to this final subdomain of
47
48 the relevant stereotyping literature that we now turn.
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52 **Backlash Following Stereotype Incongruency**
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55 Research on people's reactions to counterstereotypical behavior indicates that when
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57 individuals deviate from stereotypical expectations, they may encounter so called 'backlash',
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59 i.e. social and economical reprisals for violating expectations that stereotypes carry (Heilman
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3 & Wallen; 2010; Moss-Racusin, Phelan, & Rudman, 2010; Rudman, 1998; Rudman &
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5 Phelan, 2008). As mentioned before, stereotypes have a descriptive aspect to them, meaning
6
7 that they describe what we have observed, learned or been socialized to believe about the
8
9 typical characteristics and behaviors of social groups. But stereotypes also carry a prescriptive
10
11 aspect, which represent norms about how we think members of groups *should* be and act
12
13 (prescriptions) and *should not* be and act (proscriptions) (Eagly & Karau, 2002; Heilman,
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15 2001; Rudman & Fairchild, 2004; Rudman & Phelan, 2008). Violations of these prescriptive
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17 stereotypes by means of counterstereotypical behaviors can lead to social and economical
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19 reprisals, the so-called *backlash effect* (Rudman, 1998).
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23 In the context of work, backlash effects have been predominantly studied as an
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25 explanation of gender inequality in organizations. Backlash effects for women who display
26
27 counter stereotypical behavior or have counter stereotypic attributes in the work context have
28
29 been found to contribute to inequality in a variety of settings, including hiring decisions
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31 (Brescoll, Dawson, & Uhlman, 2010; Gill, 2004; Livingston, Rosette, & Washington, 2012;
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33 Rudman, 1998; yet see contrasting findings in a field study by Carlsson et al., 2014),
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35 promotion decisions (Vinkenburg et al., 2012), salary negotiations (e.g. Bowles, Babcock, &
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37 Lai, 2007; for meta-analyses, see Walters, Stuhlmacher, & Meyer, 1998; Stuhlmacher &
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39 Walters, 1999), and the evaluations of leaders (see Eagly, Karau, & Makhijani, 1995, for a
40
41 meta-analysis on experimental studies comparing women and men leaders, and Eagly,
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43 Makhijani, & Klonky, 1992, for a meta-analysis on evaluations of women and men leaders in
44
45 field studies). Studies have also shown backlash effects for men who violate gender role
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47 prescriptions in a work context (Heilman & Wallen, 2010; Moss-Racusin, Phelan, & Rudman,
48
49 2010).
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53 Most of these studies have focused on backlash for women displaying agency or
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55 competence on a stereotypically masculine task. Whereas the type of backlash effect differs
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57 per work context (e.g., not being hired, not being promoted, receiving lower evaluations),
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3 what is interesting is that meta-analytical findings show that such women are generally *not*
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5 perceived as less competent, but that their counterstereotypical behavior results in lower
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7 ratings of liking (Williams & Tiedens, 2016). The same study however also showed that this
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9 is only true for explicit displays of dominance (e.g., making demands). Implicit displays of
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11 dominance (e.g. increased eye contact) did not result in lower attributions of liking, thereby
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13 indicating that not all counterstereotypical behaviors evoke backlash.
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16 These findings are congruent with the Status-Incongruity Hypothesis (SIH) of Rudman
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18 and colleagues (Moss-Racusin, Phelan, & Rudman, 2010; Rudman, Moss-Racusin, Phelan, &
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20 Nauts, 2011), which holds that backlash only follows when (women or men) targets are
21
22 perceived to threaten the gender hierarchy in society (cf. Ridgeway, 2009). In a series of
23
24 studies, Rudman and colleagues (2011) showed that the justification of the gender hierarchy
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26 motivates backlash against women in positions of power, and that it is status proscriptions for
27
28 women rather than agency that creates discrimination. An experimental study (Moss-Racusin,
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30 Phelan, & Rudman, 2010) similarly found that modest men were less liked and were
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32 perceived to violate men’s proscriptions linked to low status (e.g., weakness and uncertainty),
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34 as well as agentic men’s prescriptions linked to high status (e.g., confidence and ambition).
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38 Furthermore, studies by Rudman and colleagues (Phelan & Rudman, 2010; Rudman &
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40 Fairchild, 2004) showed that backlash is likely to result in a preservation of the status quo and
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42 stereotype maintenance. From the side of perceivers, this may be evident. When confronted
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44 with a target who challenges a social hierarchy, perceivers punish the target with the aim of
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46 restoring the status quo. Notice that this may be true for perceivers who are different from the
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48 target as well as for perceivers who are similar to the target. If, for example, a woman
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50 displays competence on a masculine task, her behavior may not only be perceived as a threat
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52 to the high-status position of men, but it may also threaten other women’s just world belief
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54 and self-esteem, given that the target woman’s success suggests that it may be the perceiving
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women's own lack of competence that they do not have a higher status (cf. Duguid, Loyd, & Tolbert, 2012).

From the side of targets, backlash is also likely to lead to stereotype-conforming behavior. In one study, Rudman and Fairchild (2004) showed that targets who were successful in a gender incongruent domain feared backlash from perceivers and therefore tried to restore being perceived as stereotype congruent. They tried to hide being successful, or compensated with gender conforming behavior to avoid a loss of self-esteem. Consequently, perceivers engaging in backlash as well as a target's responses to (the threat of) backlash seem to be driven by self-affirming tendencies and tend to result in a reinforcement of stereotypes.

Implications for diverse teams. The mechanisms underlying backlash are congruent with a number of theories that we have discussed before. For example, the SIH (Rudman et al., 2011) and Williams and Tiedens (2016) meta-analytical findings align well with the SCM's (Fiske et al., 2002) argument that competition comes at the expense of attributed warmth: the more a target is perceived to threaten the status quo, the more the self-affirming function of stereotypes causes perceivers to perceive the target as competition and, hence, low in warmth. It also illustrates the SCM's contention that warmth and competence tend to be negatively related and that most outgroup members are subject to ambivalent stereotypes. Moreover, that such targets are subject to backlash is congruent with the assertion of the BIAS map (Cuddy et al., 2007) that targets perceived as low in warmth are actively harmed.

Although research on backlash primarily focuses on how backlash harms the target, it is not difficult to see how it can also harm the performance of a team. For instance, if women surgeons are more likely than men surgeons to be sabotaged by coworkers in the surgical team (Heim, 1990), the performance of the team as well as its' patients suffer. Performance would also suffer if such a woman surgeon would hide her competence or lower her performance out of a fear of backlash. Moreover, (the fear of) backlash undermines the woman surgeon's ability to gain respect and visibility (Rudman & Fairchild, 2004). As a

consequence, the perceived lack of fit between stereotypes of surgeons and stereotypes of women is likely to remain intact (see also Rudman & Kilianski, 2000).

Although most studies on backlash exclusively focus on gender, the SIH suggests that it is not gender *per se*, but a challenge of societal status hierarchies that drives backlash. As such, members of diverse teams may experience (a fear of) backlash whenever they display counterstereotypical behavior that defies social hierarchies, regardless of whether the social hierarchy is based on gender, race, education, functional background, tenure, or any other characteristic that is known to affect status (cf. van Dijk & van Engen, 2013).

Integrative Summary: Stereotyping in the Functioning Phase

Conventional wisdom suggests that the effects of stereotypes wane as members work together over a prolonged period of time and get to know each other better. Our review of the consequences of stereotypes in the functioning phase however indicates that this is anything but a given. Specifically, research on impression formation indicates that perceivers will only individuate targets when (a) they are motivated to get to know the target better, (b) are confronted with stereotype-incongruent attributes or behavior, and (c) (re)categorization does not suffice. Perceivers however prefer to use categorization over individuation to form an impression of a target, and the burden of disproving stereotypes resides with the targets, not the perceivers. As such, it can happen that members work together for years but still judge and treat each other in stereotype-corresponding ways because the stereotype has never been (fully) disconfirmed.

Further, research on backlash indicates that even if targets disprove stereotypes by behaving in ways that are incongruent with them, this can come at great costs for the targets. The prescriptive nature of stereotypes causes perceivers to consider stereotypes as norms, and violations of such norms tend to be punished by perceivers. The possibility of such repercussions can – and frequently does - cause targets to opt for conforming to perceivers’

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3 expectations. As a consequence, stereotypes are not disconfirmed and perceivers can
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5 continue to rely on their category-based impression of a target.
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7 Notice that the impression formation and backlash literatures in combination reflect
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9 the two main functions of stereotypes. Specifically, by pointing out that perceivers prefer
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11 forming impressions based on categorization and try to avoid individuation because it taxes
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13 the working memory, the impression formation literature illustrates the efficiency function of
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15 stereotypes. The backlash literature, on the other hand, indicates how stereotypes fulfill a self-
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17 affirming function in two ways. First, because stereotypes are seen as behavioral norms,
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19 punishing those who disconfirm stereotypes serves to affirm the perceiver's worldview.
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21 Second, because stereotype-disconfirming behavior tends to challenge the status quo,
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23 repercussions are perceivers' attempts to maintain the social hierarchy and their own position
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25 in it.
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29 Literature on the consequences of stereotypes in the functioning phase thus suggest
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31 that stereotypes can affect attributions and behaviors over an extensive period of time and
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33 may, in fact, never fully wane. Whereas in real-life teams the interdependent nature of
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35 teamwork may motivate members to look beyond initial categories and engage in
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37 individuating targets, we can also conclude that in real-life settings there are two factors that
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39 are likely to increase the extent to which diverse team members rely on stereotypes in
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41 comparison to the lab contexts where the majority of studies have been conducted. First,
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43 members are more likely to experience time pressure and be confronted with deadlines in
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45 actual teams than in lab-created teams, and the mono-task settings in labs tend to be a
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47 simplification of the more complex multi-task environments of actual teams. As such, the
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49 efficiency function of stereotypes is more likely to matter and, hence, be used by members of
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51 actual teams compared to members of lab-created teams. Second, people tend to derive
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53 significant amounts of self-esteem from their work and their (hierarchical) position (Pierce &
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Gardner, 2004). The self-affirmation function of stereotypes is therefore also more likely to be activated in actual teams compared to lab-created teams.

Taken together, our review of the literatures addressing the initial and longer-term consequences of stereotypes suggests that stereotypes drive attributions, behaviors and performance in (diverse) teams in ways that tend to reinforce those stereotypes. This is not to say that it is impossible to overcome stereotype-based attributions. In our review, we have identified a number of factors that facilitate individuation and acceptance of counterstereotypical behavior. Most of these factors implicitly or explicitly relate to a perceiver’s impression formation motivation. For example, task complexity (including time pressure) affects a perceiver’s impression formation motivation, such that higher levels of complexity demand more cognitive resources and thereby challenge the extent to which a perceiver will engage in individuating the other. Further, a perceiver’s impression formation motivation is affected by interdependencies between the perceiver and a target. The more that a perceiver depends on a target, the more a perceiver will pay attention to individuating information pertaining to how much and in what ways the target can either help or hurt the perceiver (Rudman, 1998; Ruscher & Fiske, 1990). However, our review indicates that using and relying on stereotypes tends to be the default, and that this can have far-reaching consequences. As shown in our review of the literature on team diversity, diversity researchers to date have rarely integrated these insights from the literature on (the consequences of) stereotypes into their theoretical models. In the next and final part, we will therefore present a model in which we integrate the insights from our review of the stereotyping literatures with the wider diversity literature. We summarize how stereotypes affect microdynamics in diverse teams, and outline how the findings from the stereotyping literature relate to as well as differ from current diversity theory.

Part IV: An Integrative Model and Perspective on the Microdynamics of Diversity and Stereotyping in Teams

To provide a clear summary and integration of our review of the diversity and stereotyping literatures, we visually integrated the main points into a temporal model of the Microdynamics of Diversity and Stereotyping in Teams (MIDST): Figure 4a delineates the microdynamics in the forming phase, and Figure 4b shows the recurring microdynamics in the functioning phase. In line with calls for multilevel (Kozlowski, 2012) and cross-level (Kenny & Garcia, 2012) conceptualizations of team processes, the MIDST model distinguishes between three levels. The first (lowest) level is that of a target team member, the second (intermediate) level is that of the perceiving team members, and the third (highest) is the team level. Team-level constructs are understood as emergent properties and outcomes of lower-level phenomena, attitudes and behaviors (cf. Kozlowski & Chao, 2012; Waller et al., 2016). For example, on the left-hand side of the model, team diversity is shaped by the combination of the attributes of all individual team members.

The stereotype content model (Fiske et al., 2002), role congruity theory (Eagly & Karau, 2002) and the lack-of-fit model (Heilman, 1983) indicate that the level of warmth and competence that perceiving members attribute to a target team member depends on how the target member is categorized (e.g. as a professional or an amateur, a man or a woman, an extravert or an introvert) and the extent to which category-relevant social (\times task) stereotypes are salient to the perceiving team members (see number 1 in Figure 4a). In line with the BIAS Map (Cuddy et al., 2007), these attributions are proposed to shape stereotype-reinforcing behaviors of perceiving members (number 2) that push a target member into stereotype-conforming behavior (Rudman et al., 2011; Snyder et al., 1977; Wiggins, 1979) (number 3). Similarly, self-categorization theory (Turner et al., 1987) indicates that the level of warmth and competence that a target member attributes to the self is affected by the member's self-categorization in combination with the extent to which category-relevant social (\times task) stereotypes are salient to the target team member (number 4). In turn, these self-attributions shape a target member's behavior (number 5) and subsequent performance in a stereotype-

confirming manner (number 6). Importantly, stereotype threat research (e.g., Schmader et al., 2008) indicates that in case perceivers' competence attributions of a target member are negative, they are likely to negatively affect the target member's performance *regardless of* whether the target member shares or agrees with those attributions. The MIDST model therefore indicates that the stereotype threat effect of perceivers' attributions regarding a target member's performance in diverse teams are mediated by perceiving members' behaviors towards the target member (number 7), given that such behaviors are likely to strengthen (e.g., through condescending, ignoring, rejecting behaviors towards the target) or weaken (e.g., through confirming, deferring, assisting behaviors towards the target) the target member's experience of threat of a negative stereotype.

The processes in the MIDST model up to this point are those we identified in our review of stereotyping in the forming phase. Accordingly, the individual target's performance should not be interpreted as a final state, but as an ongoing process. Next are microdynamics that we identified in our review of the consequences of stereotyping in the functioning phase. Based on research on impression formation (e.g., Fiske & Neuberg, 1990) as well as backlash (e.g., Rudman et al., 2012), re-attributions of a target member's warmth and competence are based on the member's behavior and performance in the MIDST model (number 8 in Figure 4b). Individuation thus takes place via a feedback loop from a target member's behavior to perceiving members' attributions. However, re-attributions will take place only when perceivers are motivated to improve the accuracy of their assessment of the target member by directing attention to individuating information (number 9). Such re-attributions lead to re-categorization in case individuating information creates attributions that do not fit the initial categorization (number 10). These microdynamics may continue until perceiving members' attributions of the target member are congruent with the target member's behavior or perceiving members lack the motivation to further individuate a target member (e.g., because

the current understanding of a target member satisfies perceivers' impression formation motivation).

In short, the above describes the integrative, temporal MIDST model in its most basic form. In the following, we discuss how the MIDST model informs our understanding of the relationship between team diversity and team performance. We first delineate how the MIDST model suggests that stereotypes in diverse teams can create microdynamics that positively affect team performance, after which we discuss how stereotypes in diverse teams can also initiate microdynamics that negatively affect team performance. While outlining the potentially positive and negative consequences of the microdynamics of diversity and stereotyping for team performance, we discuss relevant team-level factors that may emerge from the lower-level relationships and microdynamics. We also discuss how the MIDST model relates to the main theories and models in use in the extant diversity literature.

Positive Consequences of Diversity and Stereotyping in Teams

To start with the potentially positive consequences of diversity, our review suggests that diversity can lead to efficiency and coordination benefits. Specifically, in diverse teams stereotypes can – as far as they lead to accurate attributions of competence and warmth, see our discussion of the consequences of inaccuracy below – facilitate an understanding of what to expect from target team members and how to behave towards them. When, for example, a team consists of economists and lawyers, stereotype-based attributions suggest that economists can be trusted with economic problems, whereas juridical matters can better be delegated to members with a background in law. Given that members are likely to hold similar stereotypes, they *automatically* shape a teamwork mental model (i.e. shared knowledge about teammates' skills or interaction requirements; Ellwart, Konradt, & Rack, 2014, p. 121) that facilitates coordination and saves members time, energy and cognitive resources that otherwise need to be spent on determining members' value and how to interact with each other. Homogeneous teams are void of such an efficiency advantage of stereotypes.

If, for example, the previously mentioned team would only consist of economists, it may take a while to find out which member is most proficient to address a juridical issue.

As such, the MIDST model suggests that information elaboration is not always needed for diverse teams to outperform homogeneous teams. An increase in diversity may generate a better match or fit between team members’ skills and competencies on the one hand, and the specific task requirements on the other (cf. literature on person-job fit, e.g., Caldwell & O'Reilly, 1990). Think, for example, of an operation room, where functional background diversity (e.g., surgeon, anesthesiologist, nurse) is a prerequisite for performing an operation. Especially for task contexts where diversity is needed for the team and different members have different roles that correspond with their background, diversity may have a direct bearing on performance regardless of whether team members engage in information elaboration. Such a person-job fit perspective on the consequences of diversity suggests that the benefits of diversity are most likely to be found in teams that are diverse in terms of members’ functional background, which is exactly what meta-analytical findings indicate (van Dijk et al., 2012).

The potential efficiency advantage of diverse teams that we advocate here in two ways complements the advantage of diversity as presented in the information/decision-making perspective, i.e. that diverse teams hold a more diverse set of perspectives, knowledge and information, and through information elaboration can outperform homogeneous teams (van Knippenberg et al., 2004). First, although the MIDST model does not explicitly suggest that members of diverse teams hold a richer set of informational resources compared to members of homogeneous teams, it does indicate that members of diverse teams are likely to *expect* a more heterogeneous set of informational resources to be present in their team. Indeed, a number of studies show that surface-level differences prepare members for disagreement (de Kwaadsteniet, Homan, van Dijk, & van Beest, 2012; Rink & Ellemers, 2007), which can make diverse teams more open for and willing to engage in information elaboration (Lloyd,

Wang, Phillips, & Lount, 2013; Phillips, 2003). Second, the teamwork mental model that emerges from stereotype-based attributions is likely to create disparities in the information elaboration process, such that members will defer more to those whom are attributed higher levels of competence and less to those whom are attributed lower levels of competence (Berger et al., 1974; Chatman, Boisnier, Spataro, Anderson, & Berdahl, 2008; Wittenbaum & Bowman, 2005). Stereotypes thus shape a hierarchy based on attributed competence that streamlines the information elaboration process and thereby can enhance performance (cf. Bunderson, 2003; Halevy, Chou, & Galinsky, 2011; Stasser, Stewart, & Wittenbaum, 1995; van Dijk & van Engen, 2013). Moreover, because competence stereotypes differ per task, such competence stereotypes automatically lead to the emergence of a task-contingent heterarchy (Aime et al., 2014), which can enhance performance via the reduction of transition costs and increasing person-job fit across tasks.

As mentioned above, these benefits of stereotypes in diverse teams for team performance are contingent on the extent to which stereotype-based attributions of a target member are *accurate* (i.e. correspond with the target member's actual warmth and competence). Even when initial stereotype-based attributions are inaccurate, it will not necessarily harm team outcomes, because the individuation feedback loop from a target member's behavior to perceiving members' attributions of a target member indicates that perceiving members may adjust their initial, stereotype-based attributions when faced with individuating information. However, as pointed out in the impression formation and backlash literatures, this individuation feedback loop is not always active, and when it is, it does not always lead to more accurate attributions. In the following, we discuss how team performance is likely to be negatively affected when stereotype-based attributions are inaccurate.

Negative Consequences of Diversity and Stereotyping in Teams

A fundamental problem with stereotypes is that they represent generalizations that do not consider the uniqueness of each individual. Although stereotypes may be fairly accurate in

describing members of a social category at large (Jussim, Cain, Crawford, Harber, & Cohen, 2009), there will always be a certain degree of inaccuracy in stereotype-based attributions of an individual target member. Such inaccuracies in particular loom large for stereotypes based on diffuse or general characteristics (Berger et al., 1972). Consider, for example, attributions of competence based on demographic characteristics versus job-related characteristics. Job-related characteristics like functional background and tenure are more task-specific and thus should be informative about a person’s actual task-competence, whereas demographic characteristics like gender and ethnicity frequently are not. As a consequence, stereotypical attributions of competence regarding demographic characteristics are more likely to be inaccurate than stereotypical attributions based on job-related characteristics (cf. Bunderson, 2003). Further, perceiving members’ attributions of a target member initially are based on little but stereotypes, whereas the target member’s self-attributions will, at most, only be partly based on self-categorization. Other aspects of self-attributed warmth and competence stem from the target member’s general self-image and experiences – idiosyncrasies (e.g., knowledge, skills) that even over time may remain unknown and undetected by other team members, but that affect the target member’s self-attributions from the very beginning. Perceivers’ stereotype-based attributions of a target team member thus will almost always be inaccurate to a certain degree.

 An important implication from the MIDST model is that the type of consequences that stem from inaccurate stereotype-based attributions depends on the strength (the more inaccurate, the more severe the consequences) and the type of inaccuracy. Based on the MIDST model, we can distinguish between four types of attribution inaccuracies: attributing (a) too much warmth, (b) not enough warmth, (c) too much competence, or (d) not enough competence to a target member. The first attribution inaccuracy, in which too much warmth is attributed to a target member, may actually be the least detrimental for team performance. Inflated attributions of warmth may enhance a number of affective processes and states, such

as helping, social cohesion, and team-member exchange (Seers, 1989), which are all positively related with team performance. Inflated warmth attributions may therefore, in fact, enhance team performance - in particular when perceivers' affective behavior towards a target member reinforces the stereotype-based attribution by enhancing the target member's warmth (cf. Wiggins, 1979). However, performance may suffer when the target member is unwilling or unable to live up to the warmth expectations. In case the member is unwilling, perceiving members may falsely place their trust in a target member, who may abuse that trust to pursue personal gain (Cuddy et al., 2011). In case the target member is unable to be as warm as prescribed by the stereotype, the target member may be discredited when perceiving members notice this discrepancy given that cold behaviors are viewed by people as highly diagnostic and are "extremely difficult to overcome" (2011, p. 79).

Second, when not enough warmth is attributed to a target member, perceivers are likely to be more reserved in their interactions with the target member and may actively harm the target. Attributions of warmth are related to liking and affective trust, which means that lower levels of attributed warmth reduces how much members are willing to interact and collaborate with the target member (Casciaro & Lobo, 2008; 2015), and, at the team level, is likely to reduce social cohesion. Moreover, because attributions shape perceptions and interpretations (Nickerson, 1998), perceivers may be prone to negatively interpreting a target member's intentions, which can give rise to relationship conflict (cf. Jehn, 1995). Of all four types of inaccurate attributions, an underestimation of a member's warmth may be the hardest to change given that perceivers' reservations about interacting with the target member limits the extent to which perceivers are motivated to pay attention to individuating information that challenges stereotype-based inferences about the target (Fiske et al., 2002).

Third, when too much competence is attributed to a target member, the member is likely to be granted more and/or more complex responsibilities than the member can handle, which is likely to result in a proliferation of errors and mistakes. Moreover, perceiving

members will place too much cognitive trust (cf. Schaubroeck, Lam, & Peng, 2011) in the target member, thereby granting the member too much influence. As a result, the team is likely to make sub-optimal decisions and follow the wrong lead (van Dijk & van Engen, 2013). There are thus many different ways in which stereotype-based attributions of a target member’s competence can hurt team performance when the level of attributed competence is higher than the member’s actual task competence.

Fourth, when not enough competence is attributed to a target member, the member is likely to be granted less and/or less complex responsibilities than (s)he can handle. At best, this results in suboptimal performance, given that the target member could do more and/or better when given the chance to do so (Joshi, *in press*; Joshi & Knight, 2015; Stasser et al., 1995). Ideally, by performing well, the member shows over time that (s)he is more competent than the initial stereotypes suggest, which may enhance perceivers’ perceptions of the target member’s competence. However, as the backlash literature indicates, such stereotype-incongruent behavior may be perceived as threatening by those higher in the hierarchy and lead to repercussions (Rudman et al., 2012). At the team level, such dynamics may best be captured by status conflict, i.e. disputes over people’s relative positions in their team’s social hierarchy (Bendersky & Hays, 2012: 323), which is detrimental to team performance.

In sum, how the microdynamics resulting from inaccurate stereotypes negatively affect performance at the team level depends on the strength and the type of inaccuracy. The longer that these inaccurate attributions persist (e.g., because a target member conforms to the stereotype, or because perceiving members are not motivated to engage in individuation), the more that the resulting microdynamics can hurt team performance. Because the main ground for perceivers to adjust their stereotype-based attributions of a target member is when the target member displays stereotype-incongruent behavior, the initiative for challenging stereotype-based attributions predominantly lies with the target. As pointed out by research on impression formation and backlash, such stereotype-defying behavior may however be met

with resistance and, as we suggest above, initiate various kinds of conflict without the certainty that over time more accurate attributions will be accomplished. Consequently, target members may settle for confirming to perceivers' stereotype-based attributions, as that is likely to lead to the smoothest interactions between members. Our review and the integrative MIDST model suggests that, unfortunately, the target then ends up – at least to some extent – representing a caricature of him-/herself, leaving perceivers unaware of the target's unique traits and qualities.

Theoretical Implications

Throughout our review we have pointed at the theoretical implications for understanding the dynamics underlying the relationship between team diversity, stereotypes, and performance. Accordingly, we will keep this section relatively brief and only focus on what we believe are the five most significant theoretical insights from our endeavor.

The *first* insight is that members employ social categorization to make judgments about target members' warmth and competence, and that these judgments could lead to the perception of an outgroup member as warmer and/or more competent than an ingroup member (Fiske et al., 2002; Magee & Galinsky, 2008). This insight challenges the assumption in diversity research that social categorization negatively affects performance in diverse teams (e.g., Carton & Cummings, 2012; Harrison & Klein, 2007), given that social categorization is also essential for creating the microdynamics related to the positive effects of stereotypes in diverse teams that we outlined above. We do not refute the fact that diversity is likely to increase the formation of subgroups, but further specify van Knippenberg et al.'s (2004) argument that members are only likely to display ingroup favoritism under conditions of threat (e.g., via backlash). When there is no perceived threat, our review suggests that stereotypes, not ingroup/outgroup thinking, govern (initial) attributions.

The *second* insight is that the role of stereotypes is to enable a perceiver to make a first, initial judgment about the role or value of a target (cf. Fiske et al., 2002; Fiske &

Neuberg, 1990). Team diversity thus leverages coordination and efficiency by enabling (stereotype-based) attributions of target members' value to team functioning. This is an important insight because conventional wisdom in diversity research holds that diverse teams can outperform homogeneous teams only when they engage in information elaboration (van Knippenberg et al., 2004). We complement this perspective by arguing that diversity can create coordination and efficiency benefits (cf. van Dijk & van Engen, 2013), which may also enhance team performance. Interestingly, given that these benefits result from social categorization, an important theoretical implication of our study is that social categorization does not only have a negative bearing on performance, but can actually create performance improvements (cf. Loyd et al., 2013).

The *third* insight is that stereotypes are used to judge or evaluate a target's competence by assessing the extent to which the characteristics or social role of the target correspond with the competencies that perceivers consider necessary for the successful execution of a task or occupational role (Eagly & Karau, 2002; Heilman, 1983; 2012). We argue that this insight is revealing for three reasons. First, it provides an explanation for *why* social hierarchies emerge and enables making predictions about when team diversity leads to disparity (Harrison & Klein, 2007; van Dijk & van Engen, 2013). Second, in noting that different categories may be valued differently, it points at the problem that different categories in diversity research are largely treated as conceptual equivalents. Third, because attributions of a target member's competence likely differ between task environments (e.g., the perceived value of a target with a background in physics may differ when the task at hand involves engineering versus nursing), it is important to consider the relevance of different types of diversity in a specific context based on prevalent stereotypes (cf. Leslie, *in press*).

The *fourth* insight is that stereotypes tend to influence the behavior of both the perceiver (Cuddy et al., 2007; 2008) and the target (Hogg & Turner, 1987) in a stereotype conforming way (Leary, 1957; Snyder et al., 1977; Steele & Aronson, 1995; Wiggins, 1979),

which entails that stereotypes in diverse teams tend to reinforce and maintain themselves. Indeed, we have pointed out that perceivers have a preference for members who behave in a stereotype-congruent way (Fiske & Neuberg, 1990) and may punish targets who display stereotype-incongruent behavior (Rudman & Fairchild, 2004; Rudman & Glick, 2001). Our review thus suggests that conflict is likely to arise when members display stereotype-incongruent behavior, which qualifies the long-standing proposition that conflict is the result of differences between members (e.g., Jehn, Northcraft, & Neale, 1999) by suggesting that differences are fine, as long as those differences correspond with stereotype-based attributions and do not challenge the status quo. Further, whereas the relevance and impact of stereotypes is usually thought to be limited to the initial moments of interaction, our review indicates that the potential consequences of stereotypes can extend well into the functioning phase and may, in fact, never fully wane (cf. Nelson et al., 1996; Schmader et al., 2008).

Finally, the *fifth* insight is that impression formation is mainly geared towards efficiency and self-affirmation and that perceivers will discontinue forming more accurate impressions of targets if the current impressions of a target member satisfies these aims. Because our review and the integrative MIDST model suggest that impression formation accuracy drives the performance of diverse teams, it is pivotal for diverse teams that the impression formation of its members is geared towards accuracy. Given that this is not the default aim of members' impression formation, we argue in the section on the managerial implications that this is where managers can have a major impact on the functioning and performance of diverse teams. First, however, we will outline an agenda for future research.

Research Agenda

Our review and integrative MIDST model shape a novel perspective on the consequences of diversity, outlined in the previous sections, which would benefit from being studied empirically. First of all, more research that explicitly investigates the consequences of stereotypes in diverse teams is needed. To date, most research on the consequences of

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stereotyping has focused on the consequences for the target, and generally has not taken place in a team context. Our primary call therefore is for studies that examine how stereotypes containing expectations of warmth and competence affect interactions between targets and perceivers and shape microdynamics in diverse teams. How do targets as well as perceivers either consciously or unconsciously deal with stereotypical expectations that are part of the attributed identities they and others bring to the team? How are their behaviors influenced by these stereotypical expectations? To what extent do their behaviors reinforce the stereotypical expectations? These are a number of fundamental questions that we have addressed about how targets and perceivers affect each other, but that also need to be studied empirically in diverse teams.

Our review suggests that for beneficial microdynamics, it is pivotal that inaccurate stereotype-based attributions are corrected. From the side of the perceivers, the impression formation literature indicates that individuation is the key to forming accurate impressions, and that the extent to which perceivers individuate targets depends on their impression formation motivation. In theory, it should be easy to motivate perceivers to individuate targets because the whole team suffers from inaccurate stereotypes. However, the automaticity of our tendency to rely and act based on stereotype-based attributions makes individuation more challenging. The field could benefit from a greater exploration of factors that affect perceivers' impression formation motivation and encourages perceivers to individuate targets in a team. We have already mentioned that interdependence and task complexity are likely to affect perceiving members' impression formation motivation, and recommend future researchers to use the three elements that determine perceivers' impression motivation (i.e., what the perceiver wants, who controls what the perceiver wants, and what the criteria are for attaining the desired outcome; Fiske & Neuberg, 1990) as a guide when examining other factors that affect perceivers' impression formation motivation (in the managerial implications section, we suggest a few factors).

From the side of targets, our review suggests that a major inhibitor of individuation is their fear of backlash, which causes them to hide their qualities. There is a current call to be authentic, stay engaged or “lean in” (Sandberg, 2013; see also research on stereotype reactance, e.g., Kray, Reb, Galinsky, & Thompson, 2004) and be prepared to deal with the consequences of backlash. Our review suggests that it is unlikely that this will work for everyone, but it is fruitful to explore the thresholds and boundary conditions of when such a confrontational approach does work in diverse teams. Further, it is important that we gain an understanding of factors that prevent backlash and stimulate individuals to show qualities (regardless of whether they are stereotype-confirming or -disconfirming) that may aid the team. Environments where there is trust between team members should increase comfort and willingness to share expertise. We therefore expect that climates characterized by psychological safety (Edmondson, 1999) or inclusion (Nishii, 2013; Nishii & de Mayer, 2009) improve the extent to which targets dare to display counter-stereotypical behavior and do not (need to) fear backlash in diverse teams. Future research could then also assess whether such behavior under such circumstances would also lead to more attributions based on individuation and thus increased attribution accuracy.

A further question raised by this review concerns the content of self-stereotypes. To date, there has been no study that examined whether warmth and competence are also the core dimensions underlying self-stereotypes. Research into this question would be beneficial, because it would impact our understanding of how much the stereotypes attributed by perceivers have the potential to align with one’s own self-stereotypes. If these dimensions are not as central to self-stereotyping, there is an increased chance of misalignment between the stereotypes used to describe oneself and the stereotypes applied by perceivers, resulting in the potential for more misunderstanding and conflict in diverse teams.

Yet another open research question pertains to the relationship between impression formation and stereotype activation in diverse teams on the one hand, and the presence of

homogeneous subgroups based on the overlap of multiple attributes – i.e., of faultlines (Lau & Murnighan, 1998; 2005) on the other. On the basis of self-categorization theory (Turner et al., 1987), we expect that strong faultlines increase the salience of stereotypes, because they enhance the level of comparative fit. As such, faultlines might in some cases increase the accuracy of stereotypes associated with social categories, e.g., if in a four-person team that has to work on an math-related task, the two men on the team are engineers with more work experience and the two women happen to have a background in marketing with little work experience. In the same way, faultlines can decrease the accuracy of (stereotypic) impression, e.g. if the two women on the four-person team working on the math-related problem happen to have the highest level of engineering skills. Therefore, faultline research could benefit from incorporating the stereotypical value or meaning of the demographic attributes that are used for identifying subgroups in the context of a given task, and could investigate if faultlines serve to disconfirm or reinforce stereotypes associated with certain social categories. However, our model points out that for such research, it is important to consider that different social identities may intersect and create a distinct identity with unique stereotypical associations (e.g., Cole, 2009; Shields, 2008). As such, it is important that researchers are cognizant about the fact that stereotype-based attributions of, for example, Black women may be different from the combined stereotype-based attributions of Blacks and of women.

Finally, we are particularly interested in the team performance consequences of the microdynamics of diversity and stereotyping in teams. As mentioned earlier, we expect performance benefits when the perceived qualities of a target member are in line with his or her actual qualities, and therefore call for research that examines whether more accurate stereotype-based attributions indeed result in information processing and coordination benefits. Specifically, future research could examine to what extent stereotypes shape emergent group-level team mental models and heterarchies, and the extent to which the accuracy of stereotypes affect the extent to which such team mental models and heterarchies

benefit team performance. Note that team mental model and heterarchy are not necessarily the only two emergent group-level constructs that we believe are affected by stereotype-based attributions in teams and explain how stereotypes can positively affect team performance. They are merely illustrative, so we call for research that tests these assumptions as well as examines other emergent states and processes that advance our understanding of how diversity and stereotyping teams can (positively) affect performance. It is important that such studies assess the development of (stereotype-based) attributions and resulting microdynamics and team performance over time, in order to see whether individuation takes place, and the extent to which individuation results in more accurate attributions, a more accurate team mental model, and positively affects team performance.

Regarding the potentially negative team performance consequences of diversity and stereotyping in teams, we call for empirical research that tests our suggestion that inaccurate stereotype-based attributions of warmth create different microdynamics and therefore have different effects on team performance than inaccurate stereotype-based attributions of competence, and that these microdynamics and team performance consequences also differ depending on whether too much or too little warmth or competence is attributed. We suggested a number of states and processes that, depending on the type of inaccuracy, may emerge from the microdynamics outlined in the MIDST model, and call for studies that empirically examine those suggestions. For example, we argue that lower warmth attributions are likely to reduce collaboration and cohesion, and may therefore provide a recipe for relationship conflicts. We also suggest that lower competence attributions are likely to create microdynamics that evoke backlash, which at the group level may give rise to status conflicts. Both types of inaccuracy thus may negatively affect team performance, but through different microdynamics and emergent states. We therefore call for studies that empirically examine how different types of inaccurate stereotype-based attributions give rise to different types of microdynamics, and how those (negatively) affect team performance.

Such research is important, not only to improve our theoretical understanding of the consequences of diversity in teams, but also for organizations. If lower warmth attributions indeed are more likely to give rise to relationship conflicts, whereas lower competence attributions are more likely to give rise to status conflicts, then the type of conflict may be indicative of the type of stereotype-based attribution inaccuracy, and will also require a different style of management. In the following, final section, we therefore discuss the managerial implications of our review.

Managerial Implications

Viewing diversity in work teams through the lens of stereotype research has far-reaching consequences for managing diversity at the workplace. As our review suggests, stereotypes in diverse work teams lead to fast and efficient (first) impressions. To the extent that these are accurate, stereotypes can actually facilitate collaboration by leveraging coordination and efficiency. However, stereotypes are gross generalizations across all members of a social category, and thus often tend to be inaccurate. If team members judge each other’s competence and warmth on the basis of inaccurate impressions that stem from stereotypes, diversity is very likely to be detrimental for team processes and performance.

A major problem with stereotypes in the context of diverse teams therefore is that people tend to settle for first (stereotypical) impressions and stick to these inaccurate impressions even after working with each other for extended periods of time. This is because people settle for “good enough” impressions of one another, and disregard information about colleagues that disproves initial (stereotypical) impressions. Accordingly, we believe that the core practical implication of our review lies in recommending incentives for accurate impression formation. Team leaders and members should be motivated to form accurate impressions of each other – instead of making quick impressions. So how can the impression formation motivation of team members be altered such that they aim for accuracy instead of efficiency? Fiske and Neuberg (1990) suggest that members’ impression formation

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3 motivation is determined by (a) what the perceiver wants, (b) who controls what the perceiver
4 wants, and (c) what the criteria are for attaining the desired outcome. Team members thus
5 must hold aims and criteria for the fulfillment of those aims that require sampling
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7 individuating information from their co-workers. For example, if team members aim to learn
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9 as much as possible from their colleagues, it stimulates them to continue to look for clues
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11 signaling that their colleagues know something or have an ability that they do not. Instilling a
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13 climate of discovery and learning as a norm, e.g. by asking team members to challenge their
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15 own assumptions about their colleagues and by asking them to find out something they did
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17 not know about each other every week, may be examples for how norms can be created that
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19 stimulate a continuous sampling of individuating information. The challenge here is that
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21 complex task environments consume attentional resources, which are then no longer
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23 available for forming an accurate impression of other team members. In other words, stress
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25 and work overload can contribute to the detrimental effects of team diversity. Interventions
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27 directed at motivating members to form accurate impressions of others thus may be
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29 particularly important in complex task environments.
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36 It is common knowledge that perceivers are more open to individuating information
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38 about targets in collaborative settings (i.e., if team members work towards a common goal and
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40 if contact between team members from different social groups is characterized by equal
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42 status, for example by highlighting common interests and similarity; Allport, 1954). However,
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44 highlighting similarities and common interests should not be done in such a way that
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46 differences are treated as non-existent (cf. colorblindness, e.g., Ryan, Hunt, Weible, Peterson,
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48 & Casas, 2007): collaboration between members from different stereotyped groups works best
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50 if everybody holds a dual identity (González & Brown, 2006). This means that all team
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52 members identify strongly with an overarching common identity, such as the team, but can
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54 also identify with their own social group (e.g., Latinos, single mothers, Muslims). The
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56 challenge here is to not highlight stereotypical features of members' social groups, because
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frequently referring to them in a superficial way may serve to reinforce stereotypes about these groups.

Note that this recommendation is different from the rhetoric employed in the context of the business case for diversity, which highlights the usefulness of the different perspectives that people from different backgrounds bring to the organization. By making membership in certain social categories more salient, this rhetoric may also make stereotypes more salient, and may make it harder for stereotype-incongruent behavior to appear. This is exactly the reason why affirmative action plans sometimes *decrease* the performance of negatively stereotyped targets (Leslie, Mayer, & Kravitz, 2014) and may also be one reason for the findings that not all diversity trainings are successful (Alhejji, Garavan, Carbery, O'Brien, & McGuire, 2016): highlighting the benefits of diversity can make social categories and the stereotypes associated with them more salient and even seem fixed, which has been argued to “deepen social divides, making differences appear large, unbridgeable, inevitable, unchangeable, and ordained by nature” (N. Haslam, 2011, p. 819). Therefore, preventing the detrimental effects of stereotypes in teams requires walking a thin line between colorblindness (ignoring the existence of different social identities) and highlighting the differences between social categories too strongly. Team leaders should attempt to build an inclusive (Nishii, 2013) and psychologically safe (Edmondson, 1999) environment in which team members are free to be themselves. This might sometimes mean enacting the stereotype and might sometimes mean defying the stereotype. Team leaders and members should thus also defend against backlash. Ideally, of course, inclusive climates are created in which perceiving members refrain from committing backlash and are open to counter-stereotypical behavior, for example by individuating target members. Team leaders could facilitate individuation by identifying team members’ strengths/expertise at the outset of the team engagement. In this way, team members can immediately rely on individuating information in evaluating each other instead of making inferences based on surface-level characteristics. Every employee can

also try to challenge his or her own stereotype-based inferences when encountering someone from another social category at the work place. Whenever seeing a member in the team, one can ask oneself or the particular member: "Are my expectations / stereotypes / assumptions correct?"; "Which stereotypes might this context evoke (e.g., we are at a manufacturing plant and I assume the men in the team will be more knowledgeable than the women members)?"; "What kind of inferences do I draw from these stereotypes?".

Next to motivating members to look beyond their stereotype-based inferences, leaders and members of diverse teams can also try to suppress acting on the basis of stereotypes, and rather attempt acting on the basis of individuating information. Given that processing individuating information requires cognitive resources such as time and effort (see above), it is important that team members continuously are invited to form accurate impressions of each other. With time and practice this behavior might become automatic behavior itself. Possibilities for practicing these individuating information practices include team-building retreats, rituals, and socializing activities. By setting a shared norm in the team for more individuating behavioral practices, these team building activities can then be brought to the work floor.

Further, team leaders are recommended to address and challenge existing beliefs about the competencies needed for success on a particular task or for an occupational role. One way in which this can be done is by considering the different elements of a task or a role. For example, whereas the role of an engineer tends to be considered as more fitting or congruent with the male role or stereotype, it is different for a number of elements that are important to be successful as an engineer, such as sensitivity to risk and respect for nature (Harris, 2008). Those elements may be associated more with the female role or stereotype. Challenging existing beliefs about tasks and occupational roles therefore may help to disconnect social from task stereotypes (see also van Dijk, van Engen, & Paauwe, 2012).

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In sum, our review shows that managing diversity in organizations is a complex task that goes beyond highlighting the benefits of differences. The key to avoiding inaccurate perceptions of colleagues lies in the creation of norms and climates where displaying counterstereotypical behaviors is not sanctioned and that motivate people to look for individuating information. We believe that everybody – not just team leaders – can contribute to such a climate. So next time we come across a person whose behavior we dislike, we should ask ourselves if we would find the behavior quite as cold or suggestive of incompetence if the target belonged to a different social category . If not, then we should ask ourselves if it is not actually we who are at fault.

References

- Abele, A. E. (2014). Communal and agentic content in social cognition: A dual perspective model. *Advances in Experimental Social Psychology*, 50, 195-255.
- Acar, F. P. (2010). Analyzing the effects of diversity perceptions and shared leadership on emotional conflict: A dynamic approach. *The International Journal of Human Resource Management*, 21, 1733-1753.
- Aime, F., Humphrey, S., DeRue, D., & Paul, J. (2014). The riddle of heterarchy: Power transitions in cross-functional teams. *Academy Of Management Journal*, 57(2), 327-352.
- Alhejji, H., Garavan, T., Carbery, R., O'Brien, F., & McGuire, D. (2016). Diversity training programme outcomes: A systematic review. *Human Resource Development Quarterly*, 27, 95-149
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley
- Anderson, N. (1965). Primacy effects in personality impression formation using a generalized order effect paradigm. *Journal of Personality and Social Psychology*, 2(1), 1-9.
- Aramovich, N. (2014). The effect of stereotype threat on group versus individual performance. *Small Group Research*, 45, 176-197.
- Asbrock, F., Nieuwoudt, C., Duckitt, J., & Sibley, C. (2011). Societal stereotypes and the legitimization of intergroup behavior in Germany and New Zealand. *Analyses of Social Issues And Public Policy*, 11(1), 154-179.
- Becker, J., & Asbrock, F. (2012). What triggers helping versus harming of ambivalent groups? Effects of the relative salience of warmth versus competence. *Journal of Experimental Social Psychology*, 48(1), 19-27.
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: a meta-analysis. *Journal of Applied Psychology*, 92(3), 595-615.

1
2
3 Bell, S. T., Villado, A. J., Lukasik, M. A., Belau, L., & Briggs, A. L. (2011). Getting specific
4 about demographic diversity variable and team performance relationships: A meta-
5 analysis. *Journal of Management*, 37, 709-743.
6
7
8
9
10 Bendersky, C., & Hays, N. (2012). Status conflict in groups. *Organization Science*, 23(2),
11 323-340.
12
13
14 Berger, J., Cohen, B. P., & Zelditch, M. (1972). Status characteristics and social interaction.
15 *American Sociological Review*, 37, 241–255.
16
17
18 Berger, J., Conner, T. L., & Fisek, M. F. (Eds.) (1974). *Expectation states theory: A*
19 *theoretical research program*. Cambridge, MA: Winthrop.
20
21
22
23 Biernat, M. (2003). Toward a broader view of social stereotyping. *American Psychologist*,
24 58(12), 1019-1027.
25
26
27 Biernat, M., Vescio, T., & Green, M. (1996). Selective self-stereotyping. *Journal of*
28 *Personality and Social Psychology*, 71(6), 1194-1209.
29
30
31
32 Blair, I., Judd, C., Sadler, M., & Jenkins, C. (2002). The role of Afrocentric features in person
33 perception: Judging by features and categories. *Journal of Personality and Social*
34 *Psychology*, 83(1), 5-25.
35
36
37
38 Bowers, C. A., Pharmer, J. A., & Salas, E. (2000). When member homogeneity is needed in
39 work teams: A meta-analysis. *Small Group Research*, 31, 305-327.
40
41
42
43 Bowles, H., Babcock, L., & Lai, L. (2007). Social incentives for gender differences in the
44 propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational*
45 *Behavior and Human Decision Processes*, 103(1), 84-103.
46
47
48
49 Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The
50 primary role of morality (vs. sociability and competence) in information
51 gathering. *European Journal of Social Psychology*, 41(2), 135-143.
52
53
54
55
56
57
58
59
60

- Brambilla, M., Sacchi, S., Rusconi, P., Cherubini, P., & Yzerbyt, V. Y. (2012). You want to give a good impression? Be honest! Moral traits dominate group impression formation. *British Journal of Social Psychology*, 51(1), 149-166.
- Brescoll, V., Dawson, E., & Uhlmann, E. (2010). Hard won and easily lost: The fragile status of leaders in gender-stereotype-incongruent occupations. *Psychological Science*, 21(11), 1640-1642.
- Brewer, M. (1988). A dual process model of impression formation. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 1, pp. 1-36). Hillsdale, NJ: Erlbaum.
- Broverman, I., Vogel, S., Broverman, D., Clarkson, F., & Rosenkrantz, P. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28(2), 59-78.
- Bunderson, J. (2003). Recognizing and utilizing expertise in work groups: A status characteristics perspective. *Administrative Science Quarterly*, 48(4), 557.
- Buyens, D., van Dijk, H., Dewilde, T., & De Vos, A. (2009). The aging workforce: perceptions of career ending. *Journal of Managerial Psychology*, 24(2), 102-117.
- Caldwell, D. F., & O'Reilly, C. A. (1990). Measuring person-job fit with a profile-comparison process. *Journal of Applied Psychology*, 75(6), 648-657.
- Carrier, A., Louvet, E., Chauvin, B., & Rohmer, O. (2014). The primacy of agency over competence in status perception. *Social Psychology*, 45, 347-356.
- Carter, N. T., Carter, D. R., & DeChurch, L. A. (in press). Implications of observability for the theory and measurement of emergent team phenomena. *Journal of Management*, Advance online publication. Doi:10.1177/0149206315609402
- Carton, A. M., & Cummings, J. N. (2012). A theory of subgroups in work teams. *Academy of Management Review*, 37, 441-470.
- Carton, A. M., & Cummings, J. N. (2013). The impact of subgroup type and subgroup configurational properties on work team performance. *Journal of Applied Psychology*, 95, 732-758.

Casciaro, T., & Lobo, M. (2008). When competence is irrelevant: The role of interpersonal
sffect in task-related ties. *Administrative Science Quarterly*, 53(4), 655-684.

Casciaro, T., & Lobo, M. (2015). Affective primacy in intraorganizational task networks.
Organization Science, 26(2), 373-389.

Chatman, J. A., & Flynn, F. J. (2001). The influence of demographic heterogeneity on the
emergence and consequences of cooperative norms in work teams. *Academy of
Management Journal*, 44, 956–974.

Chatman, J., Boisnier, A., Spataro, S., Anderson, C., & Berdahl, J. (2008). Being distinctive
versus being conspicuous: The effects of numeric status and sex-stereotyped tasks on
individual performance in groups. *Organizational Behavior and Human Decision
Processes*, 107(2), 141-160.

Chattopadhyay, P., Finn, C., & Ashkanasy, N. M. (2010). Affective responses to professional
dissimilarity: A matter of status. *Academy of Management Journal*, 53, 808-826.

Chattopadhyay, P., George, E., & Ng, C. K. (*in press*). Hearts and minds Integrating
regulatory focus and relational demography to explain responses to
dissimilarity. *Organizational Psychology Review*, Advance online publication.
Doi:10.1177/2041386615574540

Chattopadhyay, P., George, E., & Shulman, A. D. (2008). The asymmetrical influence of sex
dissimilarity in distributive vs. colocated work groups. *Organization Science*, 19, 581-
593.

Chattopadhyay, P., Tluchowska, M., & George, E. (2004). Identifying the ingroup: A closer
look at the influence of demographic dissimilarity on employee social identity.
Academy of Management Review, 29, 180-202.

Cole, E. R. (2009). Intersectionality and research in psychology. *American
Psychologist*, 64(3), 170-180.

- Cortina, L. M. (2008). Unseen injustice: Incivility as modern discrimination in organizations. *Academy of Management Review*, 33(1), 55-75.
- Crawford, E., & LePine, J. (2013). A configural theory of team processes: Accounting for the structure of taskwork and teamwork. *Academy of Management Review*, 38, 32-48.
- Cronin, M., Weingart, L., & Todorova, G. (2011). Dynamics in groups: Are we there yet? *The Academy Of Management Annals*, 5(1), 571-612.
- Cuddy, A. J., & Fiske, S. T. (2002). Doddering but dear: Process, content, and function in stereotyping of older persons. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 3-26). Cambridge: MIT Press.
- Cuddy, A., Fiske, S., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60(4), 701-718.
- Cuddy, A., Fiske, S., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, 92(4), 631-648.
- Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J.-P., ... Ziegler, R. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *The British Journal of Social Psychology*, 48(0 1), 1-33.
- Cuddy, A., Glick, P., & Beninger, A. (2011). The dynamics of warmth and competence judgments, and their outcomes in organizations. *Research in Organizational Behavior*, 31, 73-98.
- Cunningham, G. B., Choi, J. H., & Sagas, M. (2008). Personal identity and perceived racial dissimilarity among college athletes. *Group Dynamics*, 12, 167-177.
- Darley, J., & Fazio, R. (1980). Expectancy confirmation processes arising in the social interaction sequence. *American Psychologist*, 35(10), 867-881.
- De Kwaadsteniet, E., Homan, A., van Dijk, E., & Van Beest, I. (2011). Social information as a cue for tacit coordination. *Group Processes & Intergroup Relations*, 15(2), 257-271.

Denrell, J. (2005). Why most people disapprove of me: Experience sampling in impression formation. *Psychological Review*, 112(4), 951-978.

Doosje, B., Spears, R., Ellemers, N., & Koomen, W. (1999). Perceived group variability in intergroup relations: The distinctive role of social identity. *European Review of Social Psychology*, 10(1), 41-74.

Durante, F., Fiske, S. T., Kervyn, N., Cuddy, A. J., Akande, A. D., Adetoun, B. E., ... & Barlow, F. K. (2013). Nations' income inequality predicts ambivalence in stereotype content: How societies mind the gap. *British Journal of Social Psychology*, 52(4), 726-746.

Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Bulletin*, 109, 573-598.

Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, 129, 569-591.

Eagly, A., & Johnson, B. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108(2), 233-256.

Eagly, A., & Karau, S. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573-598.

Eagly, A., Karau, S., & Makhijani, M. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 117(1), 125-145.

Eagly, A., Makhijani, M., & Klonsky, B. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, 111(1), 3-22.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383.

- Ellemers, N., & Barreto, M. (2001). The impact of relative group status: Affective, perceptual and behavioral consequences. *Blackwell Handbook of Social Psychology: Intergroup Processes*, 325-343.
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and Social Identity. *Annual Review Of Psychology*, 53(1), 161-186.
- Ellwart, T., Konradt, U., & Rack, O. (2014). Team mental models of expertise location: Validation of a field survey measure. *Small Group Research*, 45, 119-153.
- Elvira, M. M., & Cohen, L. E. (2001). Location matters: A cross-level analysis of the effects of organizational sex composition on turnover. *Academy of Management Journal*, 44, 591-605.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140.
- Fiske, S. T. (2012). Managing ambivalent prejudices: smart-but-cold and warm-but-dumb stereotypes. *The Annals of the American Academy of Political and Social Science*, 639(1), 33-48.
- Fiske, S. T., & Borgida, E. (2011). Best practices: How to evaluate psychological science for use by organizations. *Research in Organizational Behavior*, 31, 253-275.
- Fiske, S., Cuddy, A., & Glick, P. (2007). Universal dimensions of social cognition: warmth and competence. *Trends in Cognitive Sciences*, 11(2), 77-83.
- Fiske, S., Cuddy, A., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.
- Fiske, S., & Neuberg, S. (1990). A Continuum of Impression Formation, from Category-Based to Individuating Processes: Influences of Information and Motivation on Attention and Interpretation. *Advances in Experimental Social Psychology*, 23, 1-74.

Frantz, C. M., Cuddy, A. J., Burnett, M., Ray, H., & Hart, A. (2004). A threat in the computer: The race implicit association test as a stereotype threat experience. *Personality and Social Psychology Bulletin*, 30(12), 1611-1624.

Gallup (2014). *Americans still prefer a male boss to a female boss*. <http://www.gallup.com/poll/178484/americans-prefer-male-boss-female-boss.aspx>, first accessed May 2015.

Gardner, D., Dyne, L., & Pierce, J. (2004). The effects of pay level on organization-based self-esteem and performance: A field study. *Journal of Occupational and Organizational Psychology*, 77(3), 307-322.

Gawronski, B., Geschke, D., & Banse, R. (2003). Implicit bias in impression formation: associations influence the construal of individuating information. *European Journal of Social Psychology*, 33(5), 573-589.

Gilbert, D., & Hixon, J. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal Of Personality And Social Psychology*, 60(4), 509-517.

Glick, P. (2002). Sacrificial lambs dressed in wolves' clothing: Envious prejudice, ideology, and the scapegoating of Jews. In L. S. Newman & R. Erber (Eds.), *Understanding genocide: The social psychology of the Holocaust* (pp. 113-142). New York: Oxford University Press.

Glick, P., & Fiske, S. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56(2), 109-118.

Gonzalez, R., & Brown, R. (2006). Dual identities in intergroup contact: Group status and size moderate the generalization of positive attitude change. *Journal of Experimental Social Psychology*, 42(6), 753-767.

- Goodwin, S., Gubin, A., Fiske, S., & Yzerbyt, V. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes & Intergroup Relations*, 3(3), 227-256.
- Gould, R. V. (2002). The origins of status hierarchies: A formal theory and empirical test. *American Journal of Sociology*, 107(5), 1143-1178.
- Greenwald, A., McGhee, D., & Schwartz, J. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464-1480.
- Greenwald, A., Nosek, B., Banaji, M., & Klauer, K. (2005). Validity of the salience asymmetry interpretation of the implicit association test: Comment on Rothermund and Wentura (2004). *Journal of Experimental Psychology*, 134(3), 420-425.
- Guillaume, Y. R. F., Brodbeck, F. C., & Riketta, M. (2012). Surface-and deep-level dissimilarity effects on social integration and individual effectiveness related outcomes in work groups: A meta-analytic integration. *Journal of Occupational and Organizational Psychology*, 85, 80-115.
- Guillaume, Y. R. F., Dawson, J. F., Otaye-Ebede, L., Woods, S. A., & West, M. A. (in press). Harnessing demographic differences in organizations: What moderates the effects of workplace diversity? *Journal of Organizational Behavior*, Advance online publication. Doi:10.1002/job.2040
- Guillaume, Y. R. F., Dawson, J. F., Priola, V., Sacramento, C. A., Woods, S. A., Higson, H. E., Budhwar, P. S., & West, M. A. (2014). Managing diversity in organizations: An integrative model and agenda for future research. *European Journal of Work and Organizational Psychology*, 23, 783-802.
- Halevy, N., Y. Chou, E., & D. Galinsky, A. (2011). A functional model of hierarchy: Why, how, and when vertical differentiation enhances group performance. *Organizational Psychology Review*, 1(1), 32-52.

- Harris, C. E. (2008). The good engineer: Giving virtues its due in engineering ethics. *Science Engineering Ethics*, 14, 153-164.
- Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32, 1199-1228.
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface-and deep-level diversity on work group cohesion. *0*, 96-107.
- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface-and deep-level diversity on group functioning. *Academy of Management Journal*, 45, 1029-1045.
- Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32(4), 1199-1228.
- Haslam, N. (2011). Genetic essentialism, neuro-essentialism, and stigma: Comment on Dar-Nimrod and Heine (2011). *Psychological Bulletin*, 137, 819-824.
- Haslam, S., Eggins, R., & Reynolds, K. (2003). The ASPIRe model: Actualizing Social and Personal Identity Resources to enhance organizational outcomes. *Journal of Occupational And Organizational Psychology*, 76(1), 83-113.
- Heatherington, L., Daubman, K. A., Bates, C., Ahn, A., Brown, H., & Preston, C. (1993). Two investigations of “female modesty” in achievement situations. *Sex Roles*, 29, 739–754.
- Heilman, M. E. (1983). Sex bias in work settings: The Lack of Fit model. *Research in Organizational Behavior*, 5, 269-298.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57, 657–674.

- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32, 113-135.
- Heilman, M. E., & Chen, J. J. (2005). Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. *Journal of Applied Psychology*, 90, 431-441.
- Heilman, M., & Wallen, A. (2010). Wimpy and undeserving of respect: Penalties for men's gender-inconsistent success. *Journal of Experimental Social Psychology*, 46(4), 664-667.
- Heim, P. (1990). Keeping the power dead even. *Journal of American Medical Women's Association*, 45, 232-243.
- Hentschel, T., Shemla, M., Wegge, J., & Kearney, E. (2013). Perceived diversity and team functioning: The role of diversity beliefs and affect. *Small Group Research*, 44, 33-61.
- Hinsz, V. B., Tindale, R. S., & Vollrath, D. A. (1997). The emerging conceptualization of groups as information processors. *Psychological Bulletin*, 121, 43-64.
- Hobman, E. V., Bordia, P., & Gallois, C. (2003). Consequences of feeling dissimilar from others in a work team. *Journal of Business and Psychology*, 17(3), 301-325.
- Hogg, M., & Terry, D. (2000). Social identity and self-categorization processes in organizational contexts. *Academy Of Management Review*, 25(1), 121-140.
- Hogg, M., & Turner, J. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. *British Journal of Social Psychology*, 26(4), 325-340.
- Homan, A. C., & Greer, L. L. (2013). Considering diversity: The positive effects of considerate leadership in diverse teams. *Group Processes & Intergroup Relations*, 16, 105-125.
- Homan, A. C., Hollenbeck, J. R., Humphrey, S. E., van Knippenberg, D., Ilgen, D. R., & van Kleef, G. A. (2008). Facing differences with an open mind: Openness to experience,

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
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45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

salience of intragroup differences, and performance of diverse work groups. *Academy of Management Journal*, 51, 1204-1222.

Homan, A. C., van Knippenberg, D., van Kleef, G. A., & De Dreu, C. K. W. (2007a). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, 92, 1189-1199.

Homan, A. C., van Knippenberg, D., van Kleef, G. A., & De Dreu, C. K. W. (2007b). Interacting dimensions of diversity: Cross-categorization and the functioning of diverse work groups. *Group Dynamics: Theory, Research, and Practice*, 11, 79-94.

Hornsey, M. J., & Hogg, M. A. (2000). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review*, 4(2), 143-156.

Horwitz, S. K., & Horwitz, I. B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management*, 33, 987-1015.

Humphrey, S. E., & Aime, F. (2014). Team microdynamics: Toward an organizing approach to teamwork. *Academy of Management Annals*, 8, 443-503.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to IMOI models. *Annual Review of Psychology*, 56, 517-543.

Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Administrative Science Quarterly*, 44, 741-763.

Jehn, K., Northcraft, G., & Neale, M. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, 44(4), 741-763.

- Joshi, A. (*in press*). By whom and when is women's expertise recognized? The interactive effects of gender and education in science and engineering teams. *Administrative Science Quarterly*, Advance online publication. Doi:10.1177/0001839214528331
- Joshi, A., & Knight, A. P. (2015). Who defers to whom and why? Dual pathways linking demographic differences and dyadic deference to team effectiveness. *Academy of Management Journal*, 58(1), 59-84.
- Joshi, A., Liao, H., & Jackson, S. E. (2006). Cross-level effects of workplace diversity on sales performance and pay. *Academy of Management Journal*, 49, 459-481.
- Joshi, A., & Roh, H. (2009). The role of context in work team diversity research: A meta-analytic review. *Academy of Management Journal*, 52, 599-627.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33(1), 1-27.
- Judd, C., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89(6), 899-913.
- Jussim, L., Cain, T., Crawford, J., Harber, K., & Cohen, F. (2009). The unbearable accuracy of stereotypes. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 199-227). Hillsdale, NJ: Erlbaum.
- Kanter, R. M. (1977). Some effects of proportions on group life: Skewed sex ratios and responses to token women. *American Journal of Sociology*, 82, 965-990.
- Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal and Social Psychology*, 28(3), 280-290.
- Katz, I., & Hass, R. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal Of Personality And Social Psychology*, 55(6), 893-905.

Kearney, E., & Gebert, D. (2009). Managing diversity and enhancing team outcomes: The promise of transformational leadership. *Journal of Applied Psychology, 94*, 77-89.

Kearney, E., Gebert, D., & Voelpel, S. C. (2009). When and how diversity benefits teams: The importance of team members' need for cognition. *Academy of Management Journal, 52*, 581-598.

Kenny, D., & Garcia, R. (2012). Using the actor-partner interdependence model to study the effects of group composition. *Small Group Research, 43*(4), 468-496.

Kervyn, N., Yzerbyt, V., & Judd, C. M. (2010). Compensation between warmth and competence: Antecedents and consequences of a negative relation between the two fundamental dimensions of social perception. *European Review of Social Psychology, 21*(1), 155-187.

Kervyn, N., Yzerbyt, V. Y., Judd, C. M., & Nunes, A. (2009). A question of compensation: the social life of the fundamental dimensions of social perception. *Journal of Personality and Social Psychology, 96*(4), 828-842.

Klein, K., & Kozlowski, S. (2000). From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organizational Research Methods, 3*(3), 211-236.

Koenig, A. M., & Eagly, A. H. (2005). Stereotype threat in men on a test of social sensitivity. *Sex Roles, 52*(7-8), 489-496.

Koenig, A. M., & Eagly, A. H. (2014). Evidence for the social role theory of stereotype content: Observations of groups' roles shape stereotypes. *Journal of Personality and Social Psychology, 107*(3), 371.

Koenig, A., Eagly, A., Mitchell, A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin, 137*(4), 616-642.

Kozlowski, S., & Chao, G. (2012). The dynamics of emergence: Cognition and cohesion in work teams. *Managerial and Decision Economics, 33*(5-6), 335-354.

- Kray, L. J., Reb, J., Galinsky, A. D., & Thompson, L. (2004). Stereotype reactance at the bargaining table: The effect of stereotype activation and power on claiming and creating value. *Personality and Social Psychology Bulletin*, 30(4), 399-411.
- Krings, F., Johnston, C., Binggeli, S., & Maggiori, C. (2014). Selective incivility: Immigrant groups experience subtle workplace discrimination at different rates. *Cultural Diversity And Ethnic Minority Psychology*, 20(4), 491-498.
- Kunda, Z., & Thagard, P. (1996). Forming impressions from stereotypes, traits, and behaviors: A parallel-constraint-satisfaction theory. *Psychological Review*, 103, 284-308.
- Lau, D. C., & Murnighan, J. K. (1998). Demographic diversity and faultlines: The compositional dynamics of organizational groups. *Academy of Management Review*, 23, 325-340.
- Lau, D. C., & Murnighan, J. K. (2005). Interactions within groups and subgroups: The effects of demographic faultlines. *Academy of Management Journal*, 48, 645-659.
- Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: the importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, 93(2), 234.
- Leslie, L. M. (*in press*). Status-based multilevel model of ethnic diversity and work unit performance. *Journal of Management*, Advance online publication.
Doi:10.1177/0149206314535436
- Leyens, J., Desert, M., Croizet, J., & Darcis, C. (2000). Stereotype threat: Are lower status and history of stigmatization preconditions of stereotype threat? *Personality and Social Psychology Bulletin*, 26(10), 1189-1199.
- Liao, H., Chuang, A., & Joshi, A. (2008). Perceived deep-level dissimilarity: Personality antecedents and impact on overall job attitude, helping, work withdrawal, and turnover. *Organizational Behavior and Human Decision Processes*, 106, 106-124.

Lin, M. H., Kwan, V. S., Cheung, A., & Fiske, S. T. (2005). Stereotype content model explains prejudice for an envied outgroup: Scale of anti-Asian American stereotypes. *Personality and Social Psychology Bulletin*, 31(1), 34-47.

Livingston, R., Rosette, A., & Washington, E. (2012). Can an agentic black woman get ahead? The impact of race and interpersonal dominance on perceptions of female leaders. *Psychological Science*, 23(4), 354-358.

Loyd, D. L., Wang, C., Phillips, K., & Lount, R. (2013). Social category diversity promotes premeeting elaboration: The role of relationship focus. *Organization Science*, 24(3), 757-772.

Madera, J., Hebl, M., & Martin, R. (2009). Gender and letters of recommendation for academia: Agentic and communal differences. *Journal Of Applied Psychology*, 94(6), 1591-1599.

Magee, J., & Galinsky, A. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy Of Management Annals*, 2(1), 351-398.

Maloney, M. M., Bresman, H., Zellmer-Bruhn, M. E., & Beaver, G. R. (2016). Contextualization and context theorizing in teams research: A look back and a path forward. *The Academy of Management Annals*, 10, 891-942.

Mathieu, J. E., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A review and integration of team composition models: Moving toward a dynamic and temporal framework. *Journal of Management*, 40, 130-160.

Mello, A. L., & Rentsch, J. R. (in press). Cognitive diversity in teams: A multidisciplinary review. *Small Group Research*, Advance online publication.

Doi:10.1177/1046496415602558

Metiu, A. (2006). Owning the code: Status closure in distributed groups. *Organization Science*, 17(4), 418-435.

- 1
2
3 Meyer, B. (*in press*). Team diversity: A review of the literature. In R. Rico (Ed.), *The Wiley*
4 *Blackwell handbook of the psychology of teamwork and collaborative processes*.
5 Chichester, UK: Wiley-Blackwell.
6
7
8
9
10 Meyer, B., & Glenz, A. (2013). Team faultline measures: A computational comparison and a
11 new approach to multiple subgroups. *Organizational Research Methods*, 16, 393-424.
12
13
14 Meyer, B., & Schermuly, C. C. (2012). When beliefs are not enough: Examining the
15 interaction of diversity faultlines, task motivation, and diversity beliefs on team
16 performance. *European Journal of Work and Organizational Psychology*, 21, 456-
17 487.
18
19
20
21
22
23 Meyer, B., Glenz, A., Antino, M., Rico, R., & González-Romá, V. (2014). Faultlines and
24 subgroups: A meta-review and measurement guide. *Small Group Research*, 45, 633-
25 670.
26
27
28
29
30 Meyer, B., Schermuly, C. C., & Kauffeld, S. (2016). That's not my place: The interacting
31 effects of faultlines, subgroup size, and social competence on social loafing behavior
32 in work groups. *European Journal of Work and Organizational Psychology*, 25, 31-
33 49.
34
35
36
37
38
39 Meyer, B., Shemla, M., & Schermuly, C. C. (2011). Social category salience moderates the
40 effect of diversity faultlines on information elaboration. *Small Group Research*, 42,
41 257-282.
42
43
44
45 Meyer, B., Shemla, M., Li, J., & Wegge, J. (2015). On the same side of the faultline:
46 Inclusion in the leader's subgroup and employee performance. *Journal of Management*
47 *Studies*, 52, 352-380.
48
49
50
51
52 Milliken, F., & Martins, L. (1996). Searching for common threads: Understanding the
53 multiple effects of diversity in organizational groups. *Academy of Management*
54 *Review*, 21(2), 402-433.
55
56
57
58
59
60

Mitchell, R., & Boyle, B. (2015). Professional diversity, identity salience and team innovation: The moderating role of openmindedness norms. *Journal of Organizational Behavior*, 36, 873-894.

Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., & Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human Resource Management*, 54(2), 217-239.

Moss-Racusin, C., Phelan, J., & Rudman, L. (2010). When men break the gender rules: Status incongruity and backlash against modest men. *Psychology Of Men & Masculinity*, 11(2), 140-151.

Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal Of Social Psychology*, 22(2), 103-122.

Nadler, A. (1997). Autonomous and Dependent Help Seeking: Personality characteristics and the Q20 seeking of help. In B. Sarason, I. Sarason, & R. G. Pierce (Eds.), *Handbook of Personality and Social Support* (pp. 258–302). New York: Plenum.

Nadler, A. (2002). Inter–group helping relations as power relations: maintaining or challenging social dominance between groups through helping. *Journal of Social Issues*, 58(3), 487-502.

Nakui, N., Paulus, P. B., & van Oudenhoven-van der Zee, K. (2011). The role of attitudes in reactions to diversity in work groups. *Journal of Applied Social Psychology*, 41, 2327-2351.

Nelson, T., Acker, M., & Manis, M. (1996). Irrepressible Stereotypes. *Journal of Experimental Social Psychology*, 32(1), 13-38.

Neuberg, S., & Fiske, S. (1987). Motivational influences on impression formation: Outcome dependency, accuracy-driven attention, and individuating processes. *Journal of Personality And Social Psychology*, 53(3), 431-444.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
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40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
- Nguyen, H. H. D., & Ryan, A. M. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology, 93*(6), 1314-1334.
- Nickerson, R. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2*(2), 175-220.
- Nishii, L. (2013). The benefits of climate for inclusion for gender-diverse groups. *Academy of Management Journal, 56*(6), 1754-1774.
- Nishii, L., & Mayer, D. (2009). Do inclusive leaders help to reduce turnover in diverse groups? The moderating role of leader, member exchange in the diversity to turnover relationship. *Journal of Applied Psychology, 94*(6), 1412-1426.
- Oakes, P., Turner, J., & Haslam, S. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal Of Social Psychology, 30*(2), 125-144.
- Oakes, P., Turner, J., & Haslam, S. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology, 30*, 125-144.
- Oswald, D., & Chappleau, K. (2010). Selective self-stereotyping and women's self-esteem maintenance. *Personality and Individual Differences, 49*(8), 918-922.
- Oswald, D., & Lindstedt, K. (2006). The content and function of gender self-stereotypes: An exploratory investigation. *Sex Roles, 54*(7-8), 447-458.
- Pfeffer, J. (1983). Organizational demography. *Research in Organizational Behavior, 5*, 299-357.
- Phelan, J. E., & Rudman, L. A. (2010). Reactions to ethnic deviance: The role of backlash in racial stereotype maintenance. *Journal of Personality and Social Psychology, 99*, 265-281.

Phillips, K. W., & Loyd, D. L. (2006). When surface and deep-level diversity collide: The effects on dissenting group members. *Organizational Behavior and Human Decision Processes*, 99, 143-160.

Quadflieg, S., & Macrae, C. (2011). Stereotypes and stereotyping: What's the brain got to do with it? *European Review of Social Psychology*, 22(1), 215-273.

Reagans, R., Zuckerman, E., & McEvily, B. (2004). How to make the team: Social networks vs. demography as criteria for designing effective teams. *Administrative Science Quarterly*, 49, 101--133.

Richard, O. C., Stewart, M. M., McKay, P. F., & Sackett, T. W. (*in press*). The impact of store-unit–community racial diversity congruence on store-unit sales performance. *Journal of Management*: Advance online publication. Doi:10.1177/0149206315579511

Ridgeway, C. L. (2009). Framed before we know it: How gender shapes social relations. *Gender & society*, 23(2), 145-160.

Rink, F., & Ellemers, N. (2007). The role of expectancies in accepting task-related diversity: Do disappointment and lack of commitment stem from actual differences or violated expectations? *Personality and Social Psychology Bulletin*, 33(6), 842-854.

Riordan, C. M. (2000). Relational demography within groups: Past developments, contradictions, and new directions. In G. R. Ferris (Ed.), *Research in Personnel and Human Resources Management*, 19, 131-173. Greenwich, CT: JAI Press.

Roberson, L., & Kulik, C. (2007). Stereotype threat at work. *Academy Of Management Perspectives*, 21(2), 24-40.

Roberson, L., Deitch, E., Brief, A., & Block, C. (2003). Stereotype threat and feedback seeking in the workplace. *Journal of Vocational Behavior*, 62(1), 176-188.

- 1
2
3 Rogers, K., Schroder, T., & Scholl, W. (2013). The affective structure of stereotype content:
4
5 Behavior and emotion in intergroup context. *Social Psychology Quarterly*, 76(2), 125-
6
7 150.
8
9
10 Rosenberg, S., Nelson, C., & Vivekananthan, P. S. (1968). A multidimensional approach to
11
12 the structure of personality impressions. *Journal of Personality and Social*
13
14 *Psychology*, 9(4), 283-294.
15
16 Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of
17
18 counterstereotypical impression management. *Journal of Personality and Social*
19
20 *Psychology*, 74, 629–645.
21
22
23 Rudman, L. A., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: The role of
24
25 backlash in cultural stereotype maintenance. *Journal of Personality and Social*
26
27 *Psychology*, 87, 157–176
28
29
30 Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes
31
32 in organizations. *Research in Organizational Behavior*, 28, 61–79.
33
34
35 Rudman, L., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: The role of
36
37 backlash in cultural stereotype maintenance. *Journal Of Personality And Social*
38
39 *Psychology*, 87(2), 157-176.
40
41 Rudman, L., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic
42
43 women. *Journal of Social Issues*, 57(4), 743-762.
44
45 Rudman, L., & Goodwin, S. (2004). Gender differences in automatic in-group bias: Why do
46
47 women like women more than men like men? *Journal of Personality and Social*
48
49 *Psychology*, 87(4), 494-509.
50
51 Rudman, L., & Kilianski, S. (2000). Implicit and explicit attitudes toward female authority.
52
53 *Personality and Social Psychology Bulletin*, 26(11), 1315-1328.
54
55
56 Rudman, L., & Phelan, J. (2008). Backlash effects for disconfirming gender stereotypes in
57
58 organizations. *Research in Organizational Behavior*, 28, 61-79.
59
60

Rudman, L., Moss-Racusin, C., Phelan, J., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology, 48*(1), 165-179.

Ruscher, J. B. (2001). *Prejudiced communication: A social psychological perspective*. Guilford Press.

Ruscher, J., & Fiske, S. (1990). Interpersonal competition can cause individuating processes. *Journal of Personality and Social Psychology, 58*(5), 832-843.

Russell, A., & Fiske, S. (2008). It's all relative: Competition and status drive interpersonal perception. *European Journal of Social Psychology, 38*(7), 1193-1201.

Ryan, C. S., Hunt, J. S., Weible, J. A., Peterson, C. R., & Casas, J. F. (2007). Multicultural and colorblind ideology, stereotypes, and ethnocentrism among Black and White Americans. *Group Processes & Intergroup Relations, 10*, 617-637.

Ryan, C., Hunt, J., Weible, J., Peterson, C., & Casas, J. (2007). Multicultural and colorblind ideology, stereotypes, and ethnocentrism among Black and White Americans. *Group Processes & Intergroup Relations, 10*(4), 617-637.

Ryan, M., & Alexander Haslam, S. (2009). Glass cliffs are not so easily scaled: On the precariousness of female CEOs' positions. *British Journal of Management, 20*(1), 13-16.

Ryan, M., & Haslam, S. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management, 16*(2), 81-90.

Ryan, M. K., & Haslam, S. A. (2007). The glass cliff: Exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Academy of Management Review, 32*(2), 549-572.

Ryan, M., Haslam, S., Hersby, M., & Bongiorno, R. (2011). Think crisis-think female: The glass cliff and contextual variation in the think manager-think male stereotype. *Journal of Applied Psychology, 96*(3), 470-484.

- 1
2
3 Sacco, J. M., & Schmitt, N. (2005). A dynamic multilevel model of demographic diversity
4 and misfit effects. *Journal of Applied Psychology, 90*, 203-231.
5
6
7 Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype
8 threat effects on performance. *Psychological Review, 115*(2), 336-356.
9
10
11 Seers, A. (1989). Team-member exchange quality: A new construct for role-making
12 research. *Organizational Behavior and Human Decision Processes, 43*(1), 118-135.
13
14
15 Sekaquaptewa, D., & Thompson, M. (2003). Solo status, stereotype threat, and performance
16 expectancies: Their effects on women's performance. *Journal of Experimental Social*
17 *Psychology, 39*(1), 68-74.
18
19
20
21
22 Shemla, M., Meyer, B., Greer, L. L., & Jehn, K. A. (2016). A review of perceived diversity in
23 teams: Does how members perceive their team's composition impact team processes
24 and outcomes? *Journal of Organizational Behavior, 37*, 89-106.
25
26
27
28
29 Shields, S. A. (2008). Gender: An intersectionality perspective. *Sex Roles, 59*(5), 301-311.
30
31
32 Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and
33 activation of conflicting stereotypes. *Journal of Personality and Social Psychology,*
34 *77*(5), 885-904.
35
36
37
38 Sinclair, L., & Kunda, Z. (2000). Motivated stereotyping of women: She's fine if she praised
39 me but incompetent if she criticized me. *Personality and Social Psychology Bulletin,*
40 *26*(11), 1329-1342.
41
42
43
44
45 Sinclair, S., Hardin, C., & Lowery, B. (2006). Self-stereotyping in the context of multiple
46 social identities. *Journal of Personality and Social Psychology, 90*(4), 529-542.
47
48
49 Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal
50 behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and*
51 *Social Psychology, 35*, 656-666.
52
53
54
55
56
57
58
59
60

Srikanth, K., Harvey, S., & Peterson, R. (2016). A dynamic perspective on diverse teams: Moving from the dual-process model to a dynamic coordination-based model of diverse team performance. *Academy of Management Annals*, 10, 453-493.

Stangor, C., Carr, C., & Kiang, L. (1998). Activating stereotypes undermines task performance expectations. *Journal of Personality and Social Psychology*, 75(5), 1191-1197.

Stasser, G., Stewart, D., & Wittenbaum, G. (1995). Expert roles and information exchange during discussion: The importance of knowing who knows what. *Journal of Experimental Social Psychology*, 31(3), 244-265.

Steele, C., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797-811.

Stone, J., Lynch, C., Sjomeling, M., & Darley, J. (1999). Stereotype threat effects on Black and White athletic performance. *Journal of Personality and Social Psychology*, 77(6), 1213-1227.

Stuhlmacher, A. F., & Walters, A. E. (1999). Gender differences in negotiation outcome: A meta-analysis. *Personnel Psychology*, 52(3), 653-677.

Sweetman, J., Spears, R., Livingstone, A., & Manstead, A. (2013). Admiration regulates social hierarchy: Antecedents, dispositions, and effects on intergroup behavior. *Journal of Experimental Social Psychology*, 49(3), 534-542.

Swencionis, J., & Fiske, S. (2014). How social neuroscience can inform theories of social comparison. *Neuropsychologia*, 56, 140-146.

Tajfel, H. & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W.G. Austin (Eds.), *The Psychology of Intergroup Relations* (pp. 7-24). Chicago: Nelson-Hall.

Thatcher, S. M. B., & Patel, P. C. (2011). Demographic faultlines: A meta-analysis of the literature. *Journal of Applied Psychology*, 96, 1119-1139.

- 1
2
3 Thatcher, S. M. B., & Patel, P. C. (2012). Group faultlines: A review, integration, and guide
4
5 to future research. *Journal of Management*, 38, 969-1009.
6
- 7 Thompson, M., & Sekaquaptewa, D. (2002). When being different is detrimental: Solo status
8
9 and the performance of women and racial minorities. *Analyses of Social Issues And*
10
11 *Public Policy*, 2(1), 183-203.
12
- 13 Tsui, A. S., & Gutek, B. A. (1999). *Demographic differences in organizations: Current*
14
15 *research and future directions*. Oxford: Lexington Books.
16
- 17 Tsui, A. S., & O'reilly, C. A. (1989). Beyond simple demographic effects: The importance of
18
19 relational demography in superior-subordinate dyads. *Academy of Management*
20
21 *Journal*, 32(2), 402-423.
22
- 23 Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987).
24
25 *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.
26
- 27 Turner, J., Hogg, M., Turner, P., & Smith, P. (1984). Failure and defeat as determinants of
28
29 group cohesiveness. *British Journal of Social Psychology*, 23(2), 97-111.
30
31
- 32 Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases.
33
34 *Science*, 185(4157), 1124-1131.
35
- 36 Ufkes, E., Otten, S., van der Zee, K., Giebels, E., & Dovidio, J. (2011). The effect of
37
38 stereotype content on anger versus contempt in "day-to-day" conflicts. *Group*
39
40 *Processes & Intergroup Relations*, 15(1), 57-74.
41
42
- 43 van Dick, R., van Knippenberg, D., Hagele, S., Guillaume, Y. R. F., & Brodbeck, F. C.
44
45 (2008). Group diversity and group identification: The moderating role of diversity
46
47 beliefs. *Human Relations*, 61, 1463-1492.
48
49
- 50 van Dijk, H., & van Engen, M. (2013). A status perspective on the consequences of work
51
52 group diversity. *Journal of Occupational and Organizational Psychology*, 86(2), 223-
53
54 241.
55
56
57
58
59
60

van Dijk, H., van Engen, M. L., & Paauwe, J. (2012). Reframing the business case for diversity: A values and virtues perspective. *Journal of Business Ethics, 111*, 73-84.

van Dijk, H., van Engen, M. L., & van Knippenberg, D. (2012). Defying conventional wisdom: A meta-analytical examination of the differences between demographic and job-related diversity relationships with performance. *Organizational Behavior and Human Decision Processes, 119*, 38-53.

van Knippenberg, A. D., & Dijksterhuis, A. (2000). Social categorization and stereotyping: A functional perspective. *European Review of Social Psychology, 11*(1), 105-144.

van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology, 58*, 515-541.

van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology, 89*, 1008-1022.

van Laer, K., & Janssens, M. (2011). Ethnic minority professionals' experiences with subtle discrimination in the workplace. *Human Relations, 64*(9), 1203-1227.

van Rijssen, H., Schellart, A., Anema, J., & Van Der Beek, A. (2011). Determinants of physicians' communication behaviour in disability assessments. *Disability and Rehabilitation, 33*(13-14), 1157-1168.

Vinkenbure, C., van Engen, M., Coffeng, J., & Dijkers, J. (2012). Bias in employment Decisions about mothers and fathers: The (dis)advantages of sharing care responsibilities. *Journal of Social Issues, 68*(4), 725-741.

Waller, M., Okhuysen, G., & Saghaian, M. (2016). Conceptualizing emergent states: A strategy to advance the study of group dynamics. *The Academy Of Management Annals, 10*, 561-598.

Walters, A., Stuhlmacher, A., & Meyer, L. (1998). Gender and negotiator competitiveness: A meta-analysis. *Organizational Behavior and Human Decision Processes, 76*(1), 1-29.

- Walton, G. M., & Spencer, S. J. (2009). Latent ability: Grades and test scores systematically underestimate the intellectual ability of negatively stereotyped students. *Psychological Science*, 20, 1132-1139.
- Wheeler, S. C., & Petty, R. E. (2001). The effects of stereotype activation on behavior: a review of possible mechanisms. *Psychological Bulletin*, 127(6), 797-826.
- Whitt, E. J., Edison, M. I., Pascarella, E. T., Terenzini, P. T., & Nora, A. (2001). Influences on students' openness to diversity and challenge in the second and third years of college. *The Journal of Higher Education*, 72, 172-204.
- Wiener, R., Gervais, S., Brnjic, E., & Nuss, G. (2014). Dehumanization of older people: The evaluation of hostile work environments. *Psychology, Public Policy, And Law*, 20(4), 384-397.
- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology*, 37(3), 395-412.
- Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, 20, 77-140.
- Williams, M., & Tiedens, L. (2016). The subtle suspension of backlash: A meta-analysis of penalties for women's implicit and explicit dominance behavior. *Psychological Bulletin*, 142(2), 165-197.
- Wittenbaum, G., & Bowman, J. (2004). A social validation explanation for mutual enhancement. *Journal of Experimental Social Psychology*, 40(2), 169-184.
- Wojciszke, B. (2005). Affective concomitants of information on morality and competence. *European Psychologist*, 10(1), 60-70.
- Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology*, 16(1), 155-188.

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Zellmer-Bruhn, M. E., Maloney, M. M., Bhappu, A. D., & Salvador, R. (2008). When and how do differences matter? An exploration of perceived similarity in teams. *Organizational Behavior and Human Decision Processes*, 107, 41-59.

Footnotes

¹ Several researchers have challenged the two-dimensional structure of the SCM. For example, a number of authors have suggested that warmth consists of two aspects that have different effects: sociability (e.g., friendliness, liking) and morality (perceived correctness, e.g., honesty, sincerity) (Brambilla, Rusconi, Sacchi, & Cherubini, 2011; Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012; Leach, Ellemers, & Barreto, 2007). More recently, Koenig and Eagly (2014) argued and found that competence consists of two separate constructs with distinct effects, namely competence (e.g., intelligence, skill) and agency (e.g., assertiveness, dominance) (see also Carrier, Louvet, Chauvin, & Rohmer, 2014). Although we support critical examinations of the two-dimensional structure of the SCM, these are rather recent developments that have not been subject to extensive scrutiny. We therefore only focus on the two dimensions of warmth and competence as proposed in the SCM.

Figures

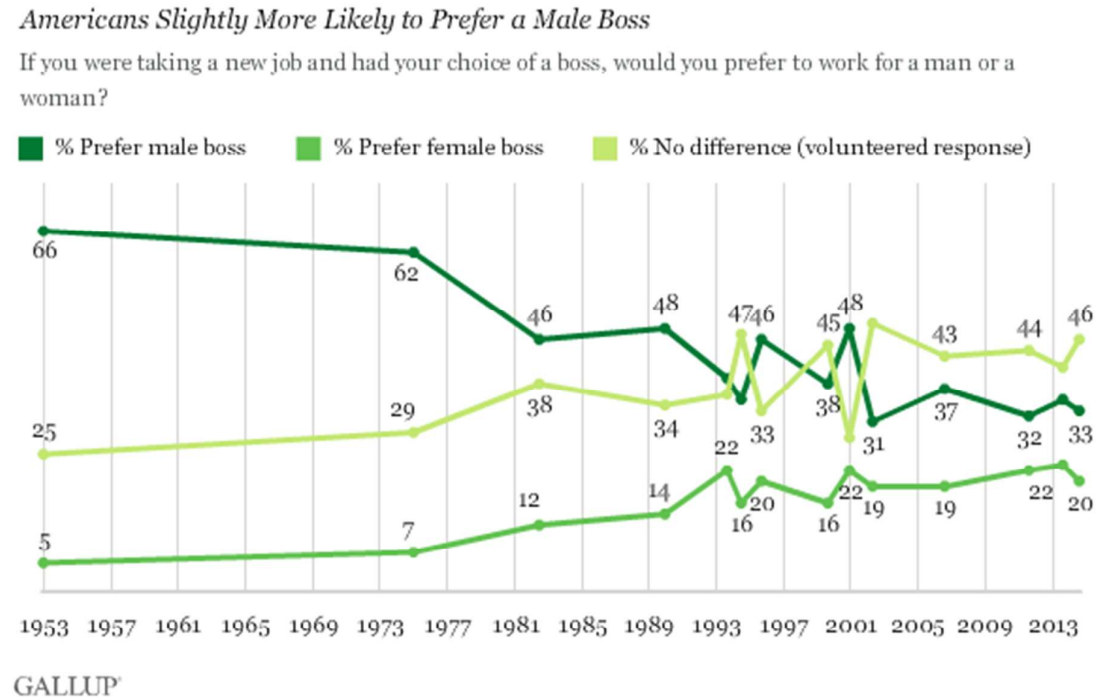


Figure 1. Evolution of Americans' preference for a men leader over the course of 60 years (Gallup, 2014). Copyright © 2014 Gallup, Inc. All rights reserved. The content is used with permission; however, Gallup retains all rights for republication.

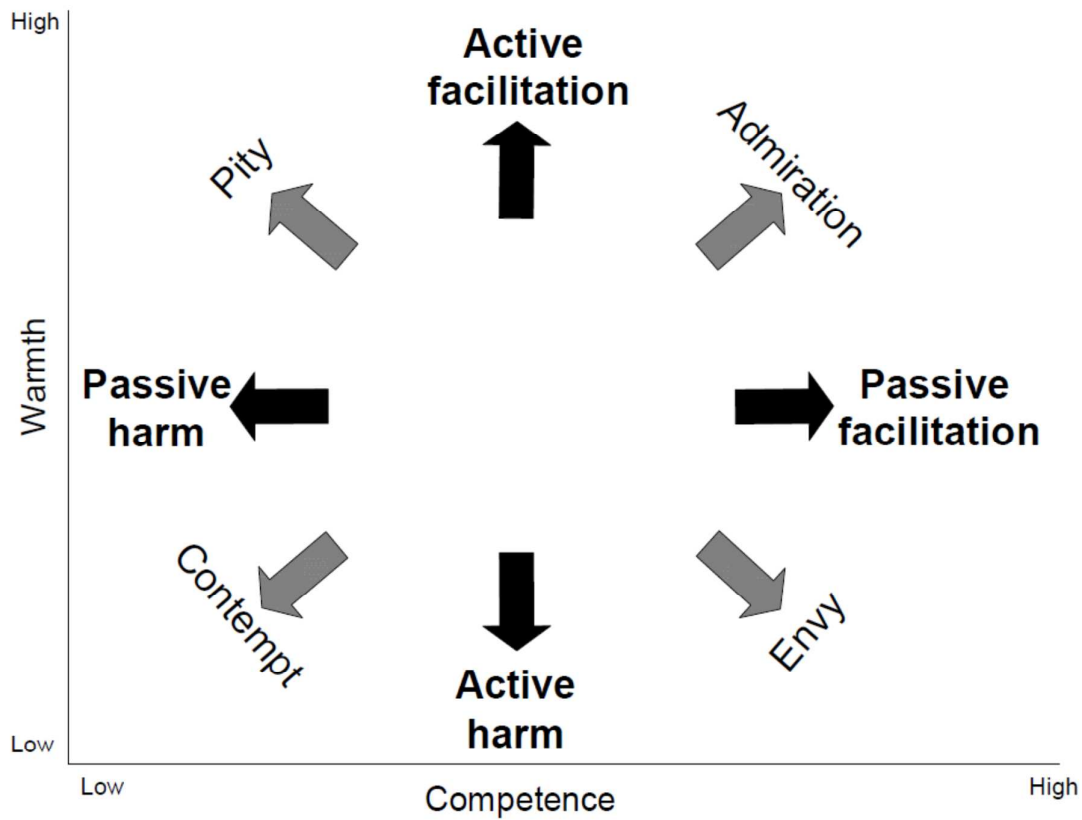


Figure 2. Schematic representation of the behaviors from intergroup affect and stereotypes (BIAS) map (Cuddy et al., 2011). Reprinted with permission.

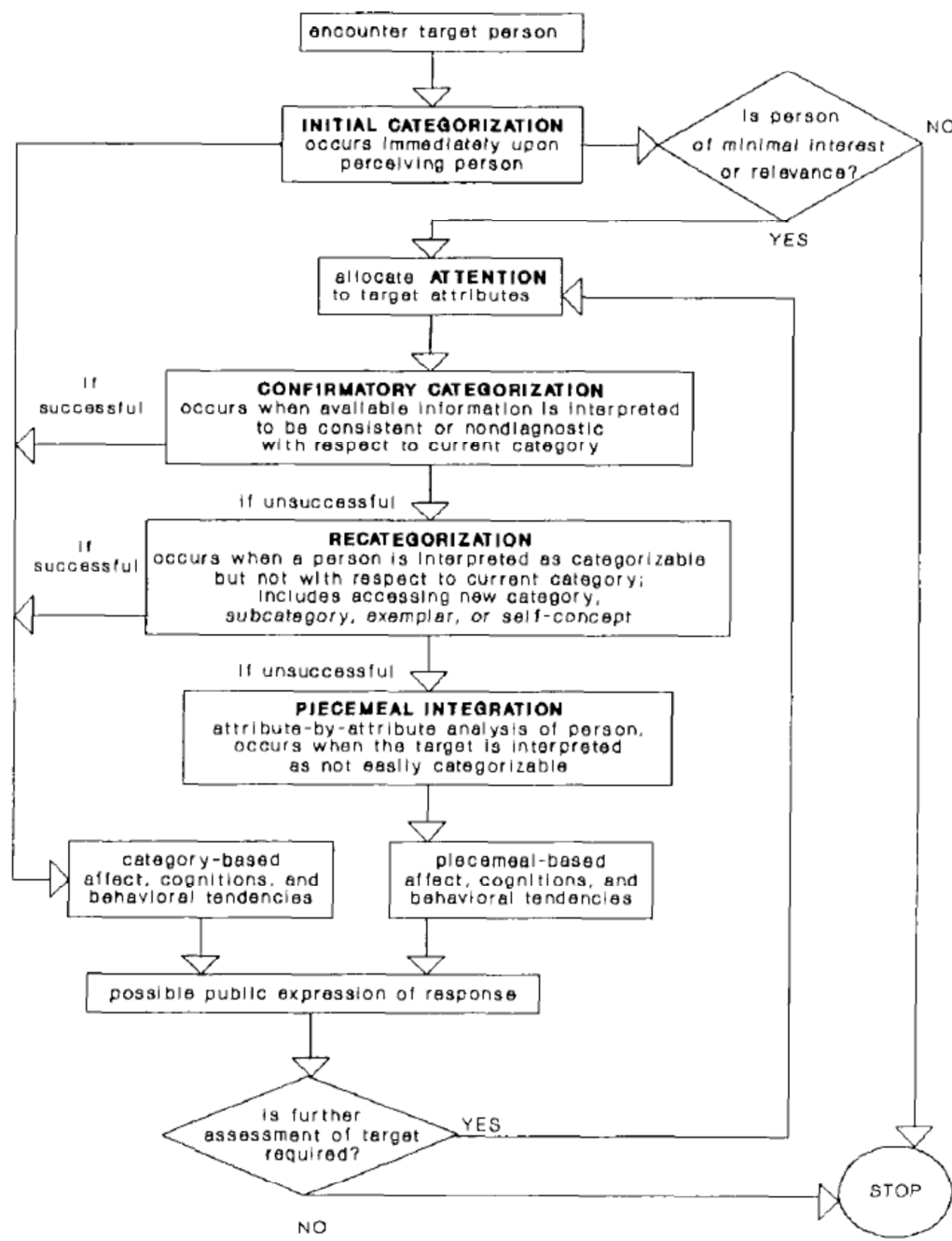


Figure 3. The continuum model of impression formation (Fiske & Neuberg, 1990). Reprinted with permission.

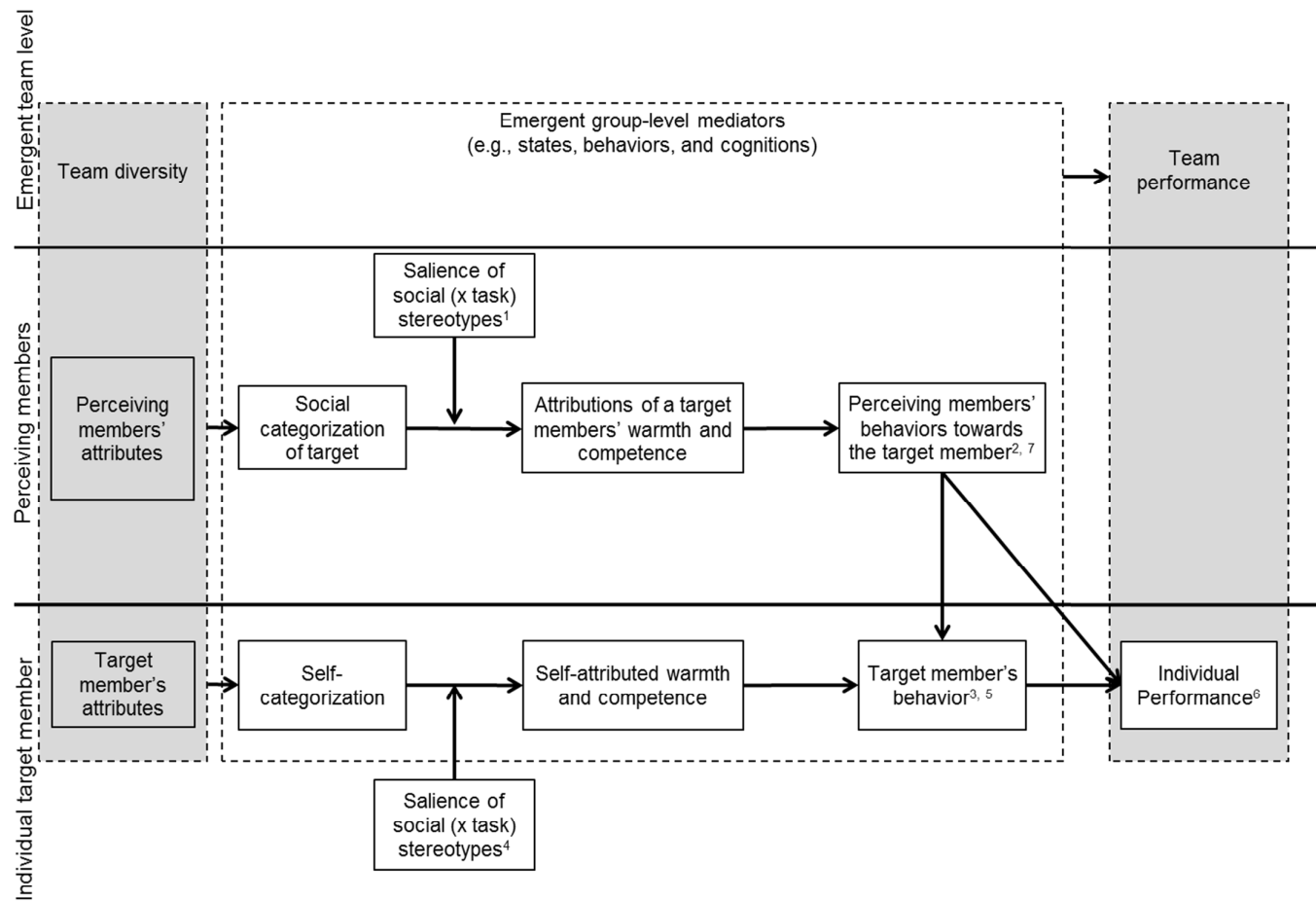


Figure 4a. An integrative, temporal model of the Microdynamics of Diversity and Stereotyping in Teams (MIDST) in the forming phase.

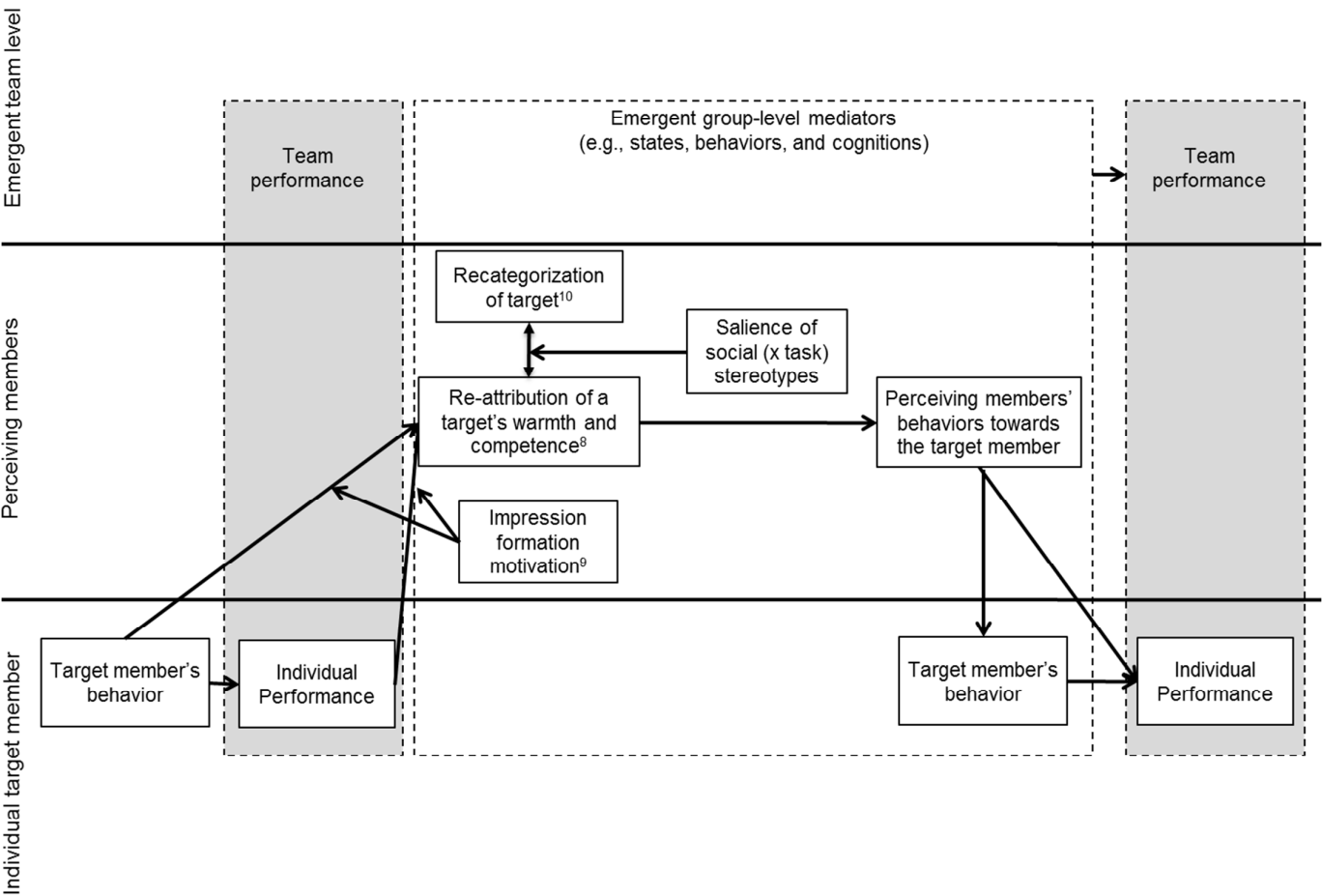


Figure 4b. An integrative, temporal model of the Microdynamics of Diversity and Stereotyping in Teams (MIDST) in the functioning phase.